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# Grain Production and Marketing in Argentina

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## FOREWORD

Argentina ranks second only to the United States as an exporter of corn and sorghum and is one of the world's leading exporters of wheat. Therefore, in view of Argentina's significance for U.S. farmers in the competition for world trade in grains, the Foreign Agricultural Service undertook this report, which updates and broadens the scope of an earlier publication—FAS M-95, *Argentine Wheat Marketing Practices and Facilities*, issued in September 1960.

In its continuing effort to report on competing grain-exporting countries, the Foreign Agricultural Service has also published FAS M-171, *The Australian Wheat Marketing System*, in December 1965 and FAS M-140 Revised, *Canadian Wheat Marketing*, in December 1966.

Much of the material presented in this report was gathered on a visit to Argentina by the author and Arthur Thompson, who at the time was Director of the Grain Policy Staff of the Agricultural Stabilization and Conservation Service. Mr. Thompson previously had served as U.S. Agricultural Attaché to Argentina. Assistance was given to the author and Mr. Thompson by officials of the Argentine Government—particularly by representatives of the National Grain Board and of the National Institute of Agricultural Technology. Valuable help also was given by leaders of Argentine producers' organizations, representatives of the private grain trade, and individual farm and ranch operators.

The author is especially indebted to Joseph C. Dodson, U.S. Agricultural Attaché to Argentina, and his staff, who made travel and appointment arrangements, furnished data and other information, and provided valuable advice and guidance.

*Richard E. Bell*  
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# CONTENTS

	Page
Argentina's position in world grain trade:	
Background . . . . .	1
Present status . . . . .	2
Grain production situation:	
Geography and climate . . . . .	4
Overall production patterns . . . . .	5
Farm organization and size . . . . .	8
Production practices . . . . .	8
Plow or pasture and competition among grains . . . . .	11
Production costs . . . . .	14
Farmer returns . . . . .	14
Grain marketing situation:	
Competitive position . . . . .	15
Domestic demand . . . . .	17
Internal marketing . . . . .	19
Main ports . . . . .	20
Domestic pricing . . . . .	21
Grading and classification . . . . .	24
Export taxes . . . . .	25
Export pricing . . . . .	26
The National Grain Board . . . . .	27
Government policy and programs for grain:	
Background . . . . .	29
Policy formulation . . . . .	30
Current policy . . . . .	30
National Institute of Agricultural Technology . . . . .	31
Taxes . . . . .	31
Credit . . . . .	31
Rental contracts . . . . .	32
Outlook for grain production and exports:	
Potential . . . . .	32
Prospects . . . . .	33
Appendix of tables:	
Area in Argentina devoted to crops . . . . .	34
Wheat supply and distribution in Argentina . . . . .	35
Corn supply and distribution in Argentina . . . . .	35
Grain sorghum supply and distribution in Argentina . . . . .	36
Barley supply and distribution in Argentina . . . . .	36
Oats supply and distribution in Argentina . . . . .	37
Rye supply and distribution in Argentina . . . . .	37
Wheat exports from Argentina by destination . . . . .	38
Corn exports from Argentina by destination . . . . .	40
Grain sorghum exports from Argentina by destination . . . . .	42
Rye exports from Argentina by destination . . . . .	43
Barley exports from Argentina by destination . . . . .	44
Oats exports from Argentina by destination . . . . .	46
Support and minimum trading prices for grains in Argentina . . . . .	48
Market prices of wheat, corn, sorghum, and beef in Argentina . . . . .	49

# Grain Production and Marketing in Argentina

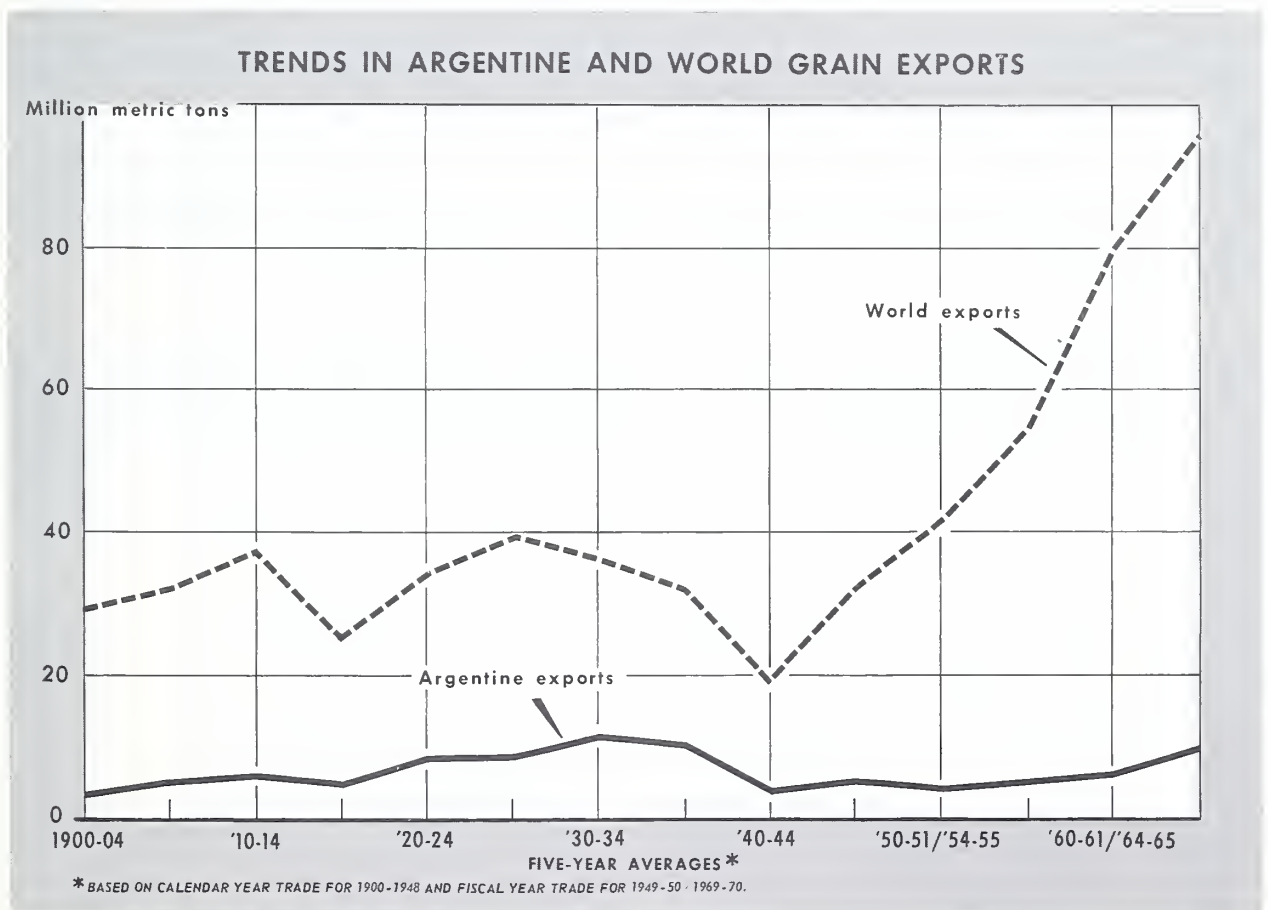
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Grain and Feed Division

## ARGENTINA'S POSITION IN WORLD GRAIN TRADE

### Background

Ever since shortly after the opening of the Pampa to grain production in the closing years of the last century, Argentina has been one of the world's leading grain exporters.

Shipments of Argentine grain fluctuated, of course, from year to year as grain crops were affected by weather conditions both in Argentina and overseas. Just prior to World War II, however, Argentina's relative position in world grain trade was at a high point where Argentina made over one-third of international grain shipments. During





the war, Argentine production and exports declined, as did world grain trade in general. Following the war, world trade volume in grains began a sharp rise while for Argentine production and exports recovery was slow. As a consequence, through the 1950's and the early 1960's, the Argentine position in world grain trade declined.

By the mid-1960's, grain exports began to pick up, and the Argentine share of world trade again started to increase. In years of bumper domestic harvests since the mid-1960's, Argentina has accounted for as much as 20 percent of world corn trade, 13 percent of wheat and flour trade, and 30 percent of sorghum trade.

Clearly, in recent years Argentine exports have been a major factor in both increases and declines occurring in U.S. grain export volume—particularly in the volume of U.S. feedgrain exports to Western Europe and of wheat exports to Latin America.

## Present status

Approximately 50 percent of Argentine grain production is exported in normal years, and grain exports supply 30 to 40 percent of total export earnings for the country. Over the past 10 years, wheat exports have provided about 15 percent of total Argentine export earnings, corn around 10 percent, and other grains approximately 5 percent.

Wheat has been the postwar export leader; however, unfavorable weather and a shift toward corn and sorghum held back production in the late 1960's, and the export volume averaged only around 2.3 million metric tons per year from 1966-67 to 1968-69. The postwar high in wheat exports was 6.4 million metric tons during the 1964-65 marketing year.<sup>1</sup>

Around 30 to 40 percent of annual wheat production has been going into the export market. The most consistent markets for Argentine wheat exports have been in South America and in Western Europe, and the annual volume of exports to these two areas has generally been in the range of 2 million to 3 million metric tons. Coincidental with the extraordinarily large exportable supplies between 1963-64 and 1965-66 were large outlets in the USSR and Mainland China; neither has been a market for Argentine wheat since then. Generally, in the past, sales to the hard currency markets in West Europe had been given the greatest preference. More recently, increased emphasis has been placed on sales to the South American area, and in late 1969 when exportable wheat supplies appeared to be limited, sales to destinations other than South America were temporarily embargoed to ensure that ample supplies would be available to meet potential demands in South American markets.

Corn exports stepped into the forefront in the late 1960's with about half of the domestic harvest being exported. Exports have averaged around 3.9 million tons annually with a postwar high of 4.1 million tons during the 1967-68 marketing season. For corn, Italy and Spain are considered to be the primary markets; only when the exportable supply has exceeded what these two countries could absorb have large sales been made elsewhere, such as to the northern countries of Western Europe. The annual volume of exports to Italy and Spain has been in the range of 2.4 million to 3.0 million tons, and shipments to these two countries have accounted for between 70 and 80 percent of all Argentine corn shipments. With Italy and Spain absorbing an increasing portion of Argentine corn exports, Japan has not been a major outlet for Argentine corn exports since the early 1960's.

Grain sorghum exports, which only started in the late 1950's, have been growing ever since. Annual export volumes were between 420,000 tons and 1.4 million tons in the late 1960's and were about 40 percent of production. Initially, the West European markets took most of Argentina's grain sorghum exports, but by 1969 Japan was taking two-thirds.

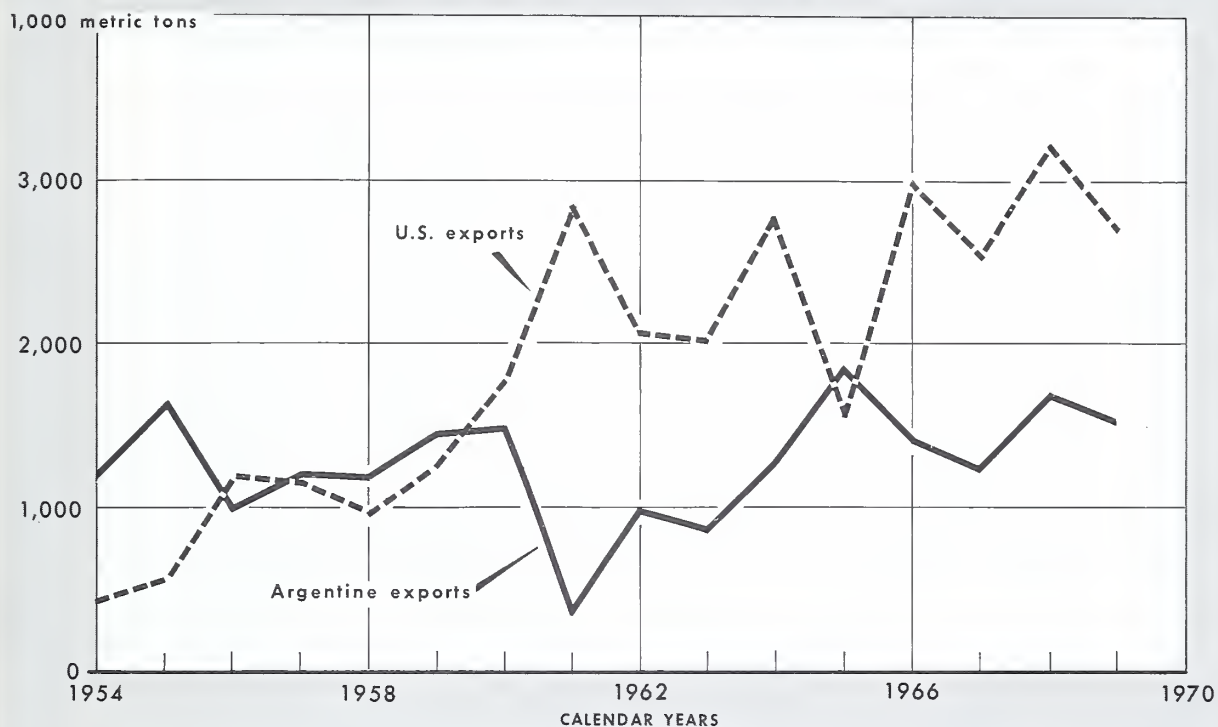
Barley, oats, and rye have become increasingly less important in the mix of Argentine grain exports as well as in world grain trade. Exports averaged around 410,000 tons between 1966-67 and 1968-69 and were only slightly more than 25 percent of domestic production. Almost all of the exports of these three grains have been to Western Europe.

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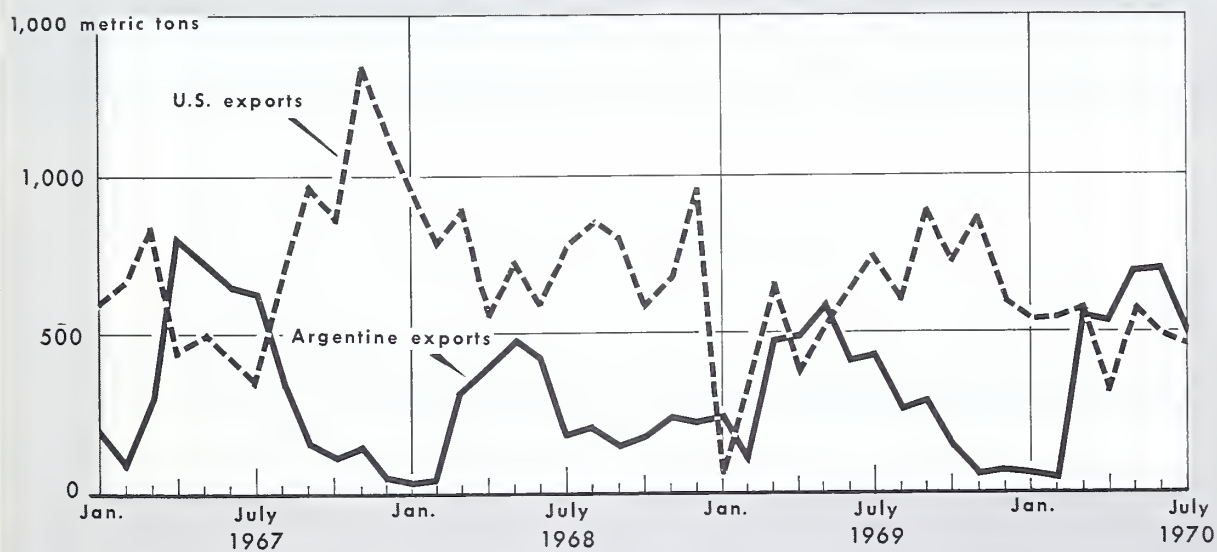
<sup>1</sup> The official marketing year for wheat is December-November. Wheat is sown in June and July, harvested in December and January, and marketed from December through November. Thus, for wheat the designation 1969-70 for crop year and marketing year refers to the same harvest. Corn is sown between August and October, harvested largely in April and May, and the official marketing year is April-March. Thus, the crop year reference 1969-70 and the marketing year reference 1970-71 both apply to the same harvest. The patterns for sorghum are similar to corn. The patterns for barley, oats, and rye are similar to wheat.



# WHEAT AND FLOUR EXPORTS FROM ARGENTINA AND THE UNITED STATES TO SOUTH AMERICA



# CORN EXPORTS FROM ARGENTINA AND THE UNITED STATES TO WESTERN EUROPE



## ARGENTINE EXPORTS OF WHEAT, CORN, SORGHUM, AND SMALL GRAINS\*



\* BARLEY, OATS, AND RYE.

Note: YEARS REPRESENT MARKETING SEASONS: DECEMBER-NOVEMBER FOR WHEAT AND SMALL GRAINS, APRIL-MARCH FOR CORN AND SORGHUM. WHEAT AND SMALL GRAIN EXPORTS FOR 1969-70 ARE PARTIALLY ESTIMATED.

## GRAIN PRODUCTION SITUATION

### Geography and climate

From north to south, Argentina measures 2,300 miles and extends through 33 degrees of latitude. It shares with Australia the major part of the Southern Hemisphere's temperate-zone land.

If reversed in direction and laid over a map of the Northern Hemisphere in corresponding latitude, Argentina's subtropical border would begin near Mexico City and its Tierra del Fuego tip would almost reach Hudson Bay in Canada. The rich Pampa area where corn, wheat, and livestock are dominant would overlap an east-west band through southern Arkansas and central Alabama. The climate in the Argentine latitude that corresponds to the center of the U.S. Corn Belt—that is, 150 miles south of Bahía Blanca—tends to be too dry and cool for corn. In fact, it is scarcely suitable for wheat although the latitude corresponds to the Kansas-Nebraska line in the United States.

Although farming enterprises have gradually diversified and spread to other areas suitable for cultivation or grazing, the Pampa remains the heart of Argentine agriculture. This fifth of the nation's area has about two-thirds of its total population, produces over three-fourths of its livestock, accounts for about two-thirds of its crop output, and is the locus of most of its major industries, urban centers, educational facilities, and wealth.

The Pampa region includes all of Buenos Aires province, nearly all of Entre Ríos, all except the northern third of Santa Fe, the two-thirds of Córdoba to the east and south, northeast San Luis, and the northeast corner of La Pampa.

Argentina varies considerably in topography, but the Pampa and the northern lowlands of the River Plate system up to the Paraguayan border are relatively level. They are broken only in a few places by hills or rocky promontories—principally from central Entre Ríos, into southern Corrientes. Farther west and south, the land rises irregularly toward the Andes.

The Pampa has a loesslike cover of silt and sand that was built up gradually by water and wind as the Atlantic coastline receded eastward through successive lifts of the earth's surface. One disadvantage of the resultant generally flat terrain, however, is the lack of well-developed waterways to carry off excessive rainfall. The Río Salado basin of central Buenos Aires province, in particular, is considerably saline in character and subject to broad overflow as it nears the Atlantic Ocean. Flanking canals have had to be constructed to alleviate the flooding problems.

Climatologists divide the entire region into humid and semiarid subregions. The humid part includes Entre Ríos and Santa Fe, all except the western one-fifth of Buenos Aires province, and a triangle in eastern Córdoba centering on Marcos Juárez. Annual rainfall in the humid portion averages around 25 to 40 inches, declining from east to west and north to south. Annual rainfall tends to drop off almost twice as fast to the west, mile for mile, as in the United States from the Mississippi River to the Great Plains. Pampa winters tend to be much drier, too. In the semiarid zone, rainfall averages from around 30 inches in central Córdoba province to a little less than 20 inches in central La Pampa, some 300 miles south.

Rainfall totals by individual years, however, may differ considerably—particularly in the semiarid zones. At Guamini in southwest Buenos Aires province during the 1946-1965 period, for example, annual rainfall ranged between about 44 inches and 11 inches.

The length of the growing season in the Pampa region is around 275-325 days in the north and only around 190-240 days in the south. From east to west, the growing season declines from about 300 days to 245-265 days.

## Overall production patterns

The climate of the Pampa has resulted in a grain production pattern that fans out about 400 miles to the northwest, west, and southwest of the city of Buenos Aires.

The Pampa region<sup>1</sup> is the heartland of Argentine agriculture and accounts for around 99 percent of the wheat production, 90 percent of the corn production, and 95 percent of the sorghum production. Around 80 percent of the cattle production is also located in this region. According to the 1960 census, 67.7 million hectares were in farms in this region. Of that area, 10.9 million hectares were in annual crops (mostly all grains), 13.3 million hectares were in temporary or permanent pastures, and 31.5 million hectares were in natural pastures.

Wheat production is concentrated in the southwest and in the north-central portion of this region. Corn production is in the northern half of the Pampa, and sorghum production tends to be to the west and northwest on the more arid lands. The largest cattle operations are in the western half of the Pampa. The production of barley, oats, and rye tends to be located in the same areas as cattle, for these grains are grown mainly for winter grazing. Flaxseed, sunflower, and peanuts all compete with grain for land with flaxseed in the south, sunflower in the central portion, and peanuts in the north.

In the other regions of the country (excluding Patagonia where grain production is not feasible) the 1960 census showed 51.6 million hectares in farms. This area included 1.3 million hectares in annual crops (mostly all

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<sup>1</sup> The country of Argentina is often divided into six geographic regions which are: the Pampa region, including the provinces of Buenos Aires, Córdoba, Entre Ríos, La Pampa, and Santa Fe; the Northwest region, including the provinces of Jujuy, La Rioja, Salta, Santiago del Estero, and Tucumán; the Monte region, including the provinces of Mendoza, San Juan, and San Luis; the Chaco region, including the provinces of Chaco and Formosa; the Northeast region, including the provinces of Corrientes and Misiones; and the Patagonia region, including the provinces of Chubut, Neuquén, Río Negro, and Santa Cruz.

grain), 6.1 million in temporary or permanent pastures, and 28.5 million in natural pastures. Also, the 1960 census listed 3.0 million hectares in regions other than the Pampa and Patagonia as potential cropland compared with only 2.4 million in the Pampa.

Land classification and farmland use in Argentina by regions, 1960

Description	Regions						
	Northwest	Chaco	Northeast	Monte	Pampa	Patagonia	Total
Land classification: <sup>1</sup>	1,000 hectares	1,000 hectares	1,000 hectares	1,000 hectares	1,000 hectares	1,000 hectares	1,000 hectares
Humid. . . . .	3,295	8,590	12,620	—	37,530	4,247	66,282
Semiarid . . . . .	—	19,270	—	—	22,320	—	41,590
Arid . . . . .	29,112	27,902	—	65,870	—	48,444	171,328
Total land area . . . . .	32,407	55,762	12,620	65,870	59,850	52,691	279,200
Land in farms: <sup>2</sup>							
Seeded area:							
Annual crops. . . . .	324	598	181	201	10,949	19	12,271
Perennial crops . . . . .	312	19	210	288	326	50	1,205
Temporary pasture . . . . .	94	29	7	81	5,777	8	5,996
Permanent pasture . . . . .	194	17	7	184	7,506	45	7,951
Total . . . . .	923	663	405	754	24,558	122	27,423
Other area:							
Potential cropland . . . . .	905	692	376	1,024	2,406	622	6,027
Natural pasture . . . . .	7,917	4,848	4,784	10,995	31,524	50,339	110,406
Woods and brush. . . . .	6,826	3,250	939	2,292	6,497	2,035	21,839
Wasteland. . . . .	1,076	540	641	1,503	2,280	2,637	8,682
Farmsteads . . . . .	65	49	43	48	445	113	766
Total . . . . .	16,789	9,385	6,783	15,862	43,152	55,746	147,720
Total land in farms <sup>3</sup> . . . . .	17,714	10,048	7,183	16,615	67,111	55,866	175,143

<sup>1</sup> Land classification totals are based on regional breakdowns that do not conform with provincial boundaries. Therefore regional land classification totals may not conform with land usage totals.

<sup>2</sup> Figures for land in farms are based on provincial totals. <sup>3</sup> Total farmland does not include land managed by 14,583 farms whose areas were not reported in the census.

Source: *Argentine Agriculture: Trends in Production and World Competition*. USDA, ERS-Foreign 216, page 93. Data on land in farms by regions has been rearranged to conform with the listing of provinces in each region given in this publication.

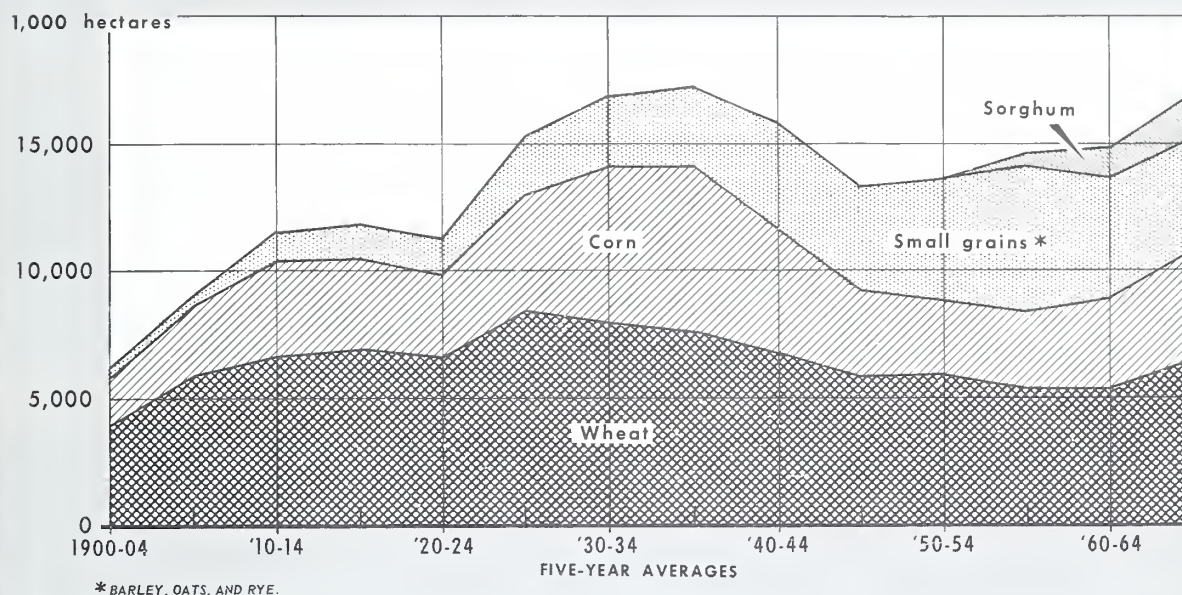
Corn production has expanded from the Pampa into the Northeast region—despite the semitropical climate of the latter area (annual rainfall of 45 to 65 inches). The Northeast's harvested corn area increased from 60,000 to 70,000 hectares in the early 1950's to around 100,000 in the late 1960's. Corn production, as well as wheat and sorghum production, has also been increasing rapidly in the Chaco region; around 100,000 to 150,000 hectares of grain were harvested in the late 1960's compared with around 50,000 hectares in the early 1950's. Most of these gains have been made on land that was formerly in cotton, but new lands are also being brought into grain production in this region. New lands also appear to be going into wheat, corn, and sorghum production in the Northwest region, for the area harvested for all grains increased from around 150,000 hectares in the early 1950's to about 250,000 in the late 1960's. In addition, there is some shift away from cotton and sugarcane in the Northwest region. Corn is the main grain crop in the Monte region; the harvested area has increased from 20,000 hectares in the 1950's to around 150,000 to 200,000 hectares in the late 1960's.

**Recent history of land use for grain production.**—After declining during World War II and through the 1950's, the area planted to grain in Argentina has been showing steady increases. In 1968 the planted area was 18.7 million hectares compared with the previous alltime high in 1937 of 18.2 million. Wheat plantings have been increased in six out of the past 10 years, and corn and sorghum sowing have both been increased in nine out of the past 10 years.



Grains now are planted on nearly 80 percent of all land under annual crops. However, compared with the 1930's, there have been some noticeable shifts in the areas devoted to each of the major grains grown.

### TRENDS IN ARGENTINE AREA PLANTED TO GRAIN



The area devoted to wheat, which was around 7 million to 8 million hectares in the 1930's, has been in the range of only 5.7 million to 6.7 million during the most recent 5 years. Between 1965 and 1969 the area under corn was between 3.9 million and 4.7 million hectares compared with 6 million to 7 million hectares during the 1930's. Among the smaller forage grains, the area devoted to rye in recent years has been more than double the levels of the 1930's but is below the record hectares of the mid-1950's. The area in barley is about the same as in the 1930's but, like rye, is below the peak levels reached during the mid-1950s. The annual area devoted to oats also reached a high point in the 1950's but in recent years has been below the levels of the 1930's. In total, the area devoted to these forage grains was larger in the period 1965 to 1969 than in the 1930's. Increases in area planted to forage grains have occurred because cattle numbers rose from 32 million-33million head in the 1930's to a temporary peak of 47 million head in 1956 and then climbed to around 47 million to 52 million head in more recent years.

The single most significant influence on Argentine grain land-use patterns has been the introduction of sorghum to Argentina. In 1950 the area planted to this grain was 37,000 hectares; by 1960 the sown area had expanded to 682,000 hectares; and in 1969 2.6 million hectares were in sorghum. Sorghum is an ideal dual-purpose crop for the low-rainfall areas of Argentina, and a portion of the increased area put under this grain has been for forage.

**Recent production trends.**—Accompanying the expansion in grain area has been a general upward trend in grain production from an average of 13.5 million metric tons between 1955-56 and 1959-60 to 16.5 million tons in 1968-69 and 21.7 million in 1969-70. The record high for wheat production was 11.3 million tons in 1964-65. Since then production has been in the range of 5.7 million to 7.3 million tons. With the rise in the area placed under corn, corn production has increased steadily to 9.4 million tons in 1970 compared with an average of 5.0 million tons in the early 1960's and 4.1 million in the late 1950's. The alltime high for corn production was 11.5 million tons in 1935. Since the early 1950's sorghum production has soared from 429,000 tons a year to 3.9 million tons in 1970. Barley, oats, and rye production, however, have trended down from the levels of the late 1950's and early 1960's.

### Production of grain in Argentina

Crop year	Wheat	Corn	Sorghum	Small grains <sup>1</sup>	Total
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
Average, 5-year:					
1936-40 . . . . .	6,036	7,671	--	1,468	15,175
1941-45 . . . . .	6,384	6,582	--	1,515	14,481
1946-50 . . . . .	6,273	3,775	--	1,860	11,908
1951-55 . . . . .	5,884	5,051	29	2,420	13,384
1956-60 . . . . .	6,143	4,083	429	2,844	13,499
1961-65 . . . . .	7,117	4,984	1,144	1,975	15,220
Annual:					
1965-66 . . . . .	6,079	7,040	2,130	1,129	16,378
1966-67 . . . . .	6,247	8,000	1,380	1,248	16,875
1967-68 . . . . .	7,320	6,560	1,897	1,630	17,407
1968-69 . . . . .	5,740	6,900	2,484	1,406	16,530
1969-70 <sup>2</sup> . . . . .	7,020	9,440	3,860	1,372	21,692

<sup>1</sup> Barley, oats, and rye.

<sup>2</sup> Preliminary.

## Farm organization and size

Visitors with U.S. farm background are usually astonished to find such a large percentage of the Argentine Pampa, so obviously suited to cultivation, still being used as cattle pasture. This is partly the consequence of the tenure system in existence at the Nation's founding—that is, the existence of ownership in very large tracts. The 1960 national census revealed that around 5 percent of owners held nearly 75 percent of all private agricultural land and that the average holding was 371 hectares. This included the great holdings in Patagonia and Tierra del Fuego where only sheep can be raised because of the cold, arid climate and low carrying capacity of the range.

In the Pampa region, where the productivity is much higher, the average holding in 1960 was smaller than the national average; but the bulk of the ownership there also was in relatively few hands. Less than 5 percent of the owners held nearly 52 percent of the land area, and the average holding for a member of that group was more than 3,100 hectares. The average size of a holding for the region as a whole was about 270 hectares. More than one-half of the units were within the size range of about 25 to 200 hectares. Their exact average was a little more than 94 hectares.

According to the 1960 census, proprietorships were the principal form of tenure. Owners operated 59 percent of all farmland in Argentina and 64 percent of the land in the Pampa region. Various forms of rental and sharecropping arrangements were in force for 23 percent of the farmland in the Pampa compared with 13 percent nationwide. Occupants of public lands managed 17 percent of Argentina's total farmland in 1960—mostly in the northern Chaco region and in the southern region of Patagonia.

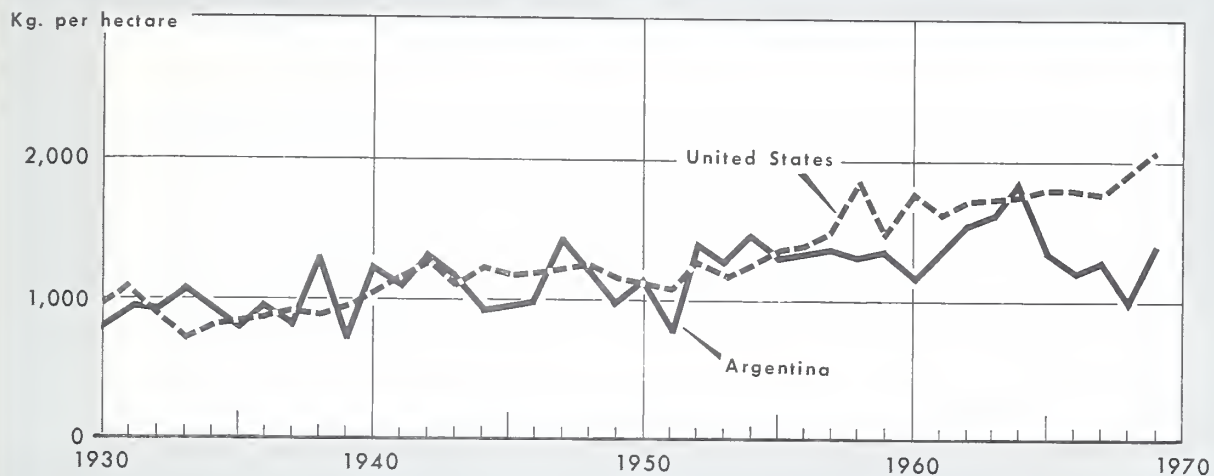
The predominance of the cattle-oriented farm structure of the Pampa region is shown in the data compiled in the 1960 farm census. The census indicates that 66 percent of the Pampa's farm area of 68 million hectares was under natural, permanent, and temporary pastures; only around 18 percent was under cereals. Even this somewhat understates the role of cattle, since barley, oats, rye, and to some extent wheat, are also used for winter grazing. According to the census, the average area per farm under wheat was 54 hectares; under corn, 20 hectares; and under grain sorghum, which was classified as a forage crop in the census, 38 hectares.

## Production practices

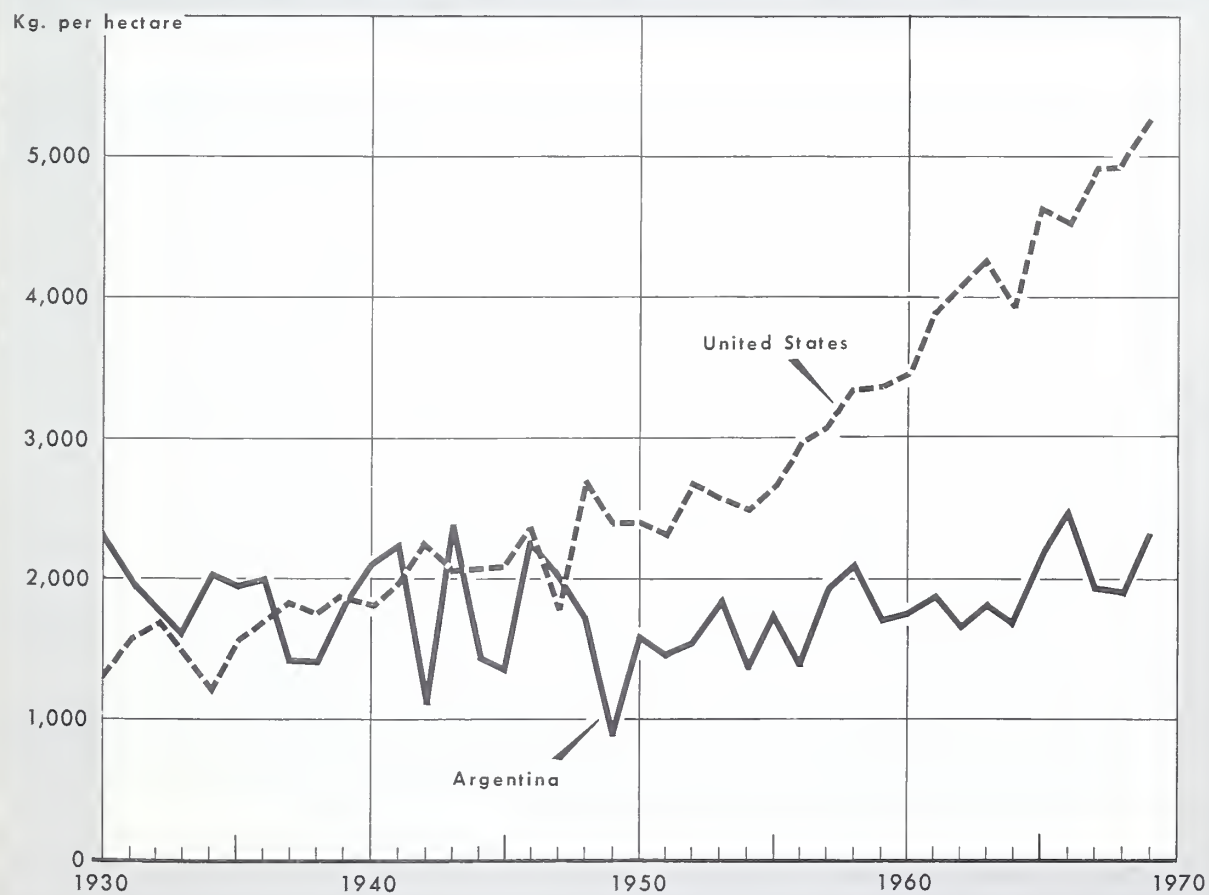
Grain producers in Argentina have adopted many of the production practices common in the United States and other major grain-producing countries, but per unit yields of grains, particularly corn and grain sorghum, are comparatively low and have increased rather slowly. The highly variable weather of the Pampa is often cited as the major reason for low yields; however, Argentine grain producers use little or no fertilizers, and time-honored cultural practices have been slow to change. Also, Argentine grain producers have not faced the extent of yield-increasing pressures—rising land and other costs or acreage allotments—that have existed in the United States.



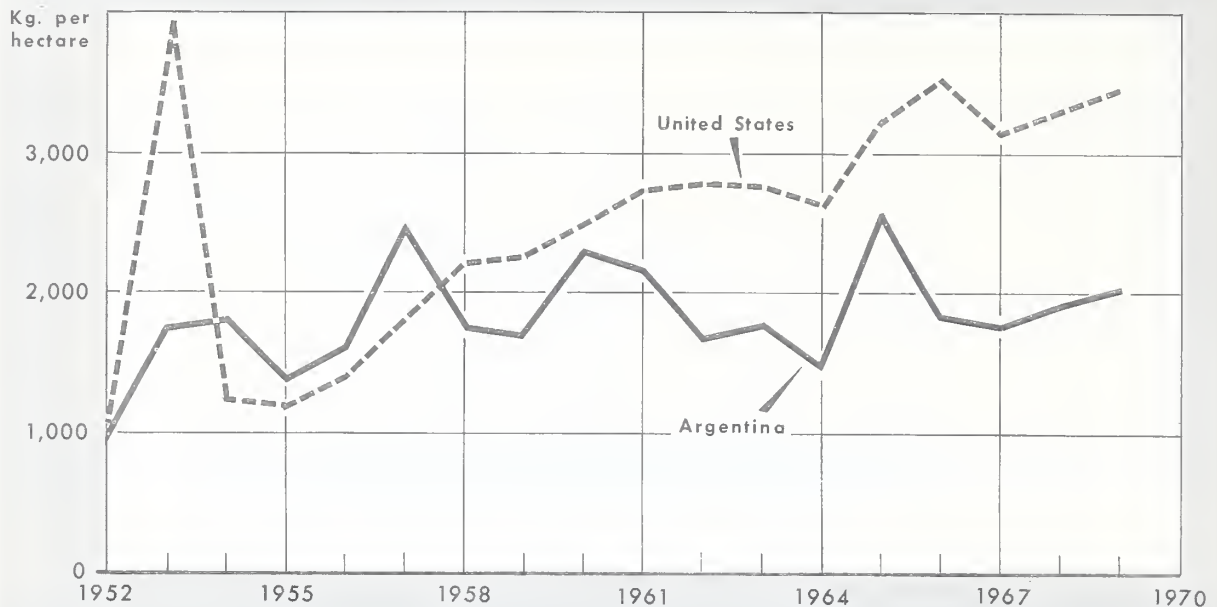
## WHEAT YIELDS IN ARGENTINA AND THE UNITED STATES



## CORN YIELDS IN ARGENTINA AND THE UNITED STATES



## SORGHUM YIELDS IN ARGENTINA AND THE UNITED STATES



**Fertilizer use.**—In Argentina fertilizer use has averaged nationally about 5 pounds per hectare (and this mostly on special nongrain crops) compared with a South American average of around 25 pounds per hectare and an average usage of approximately 110 pounds for the same area in North America. To date, corn and sorghum producers have virtually not used fertilizers. It is estimated that in 1965-66 less than 1 percent of the wheat area was treated with fertilizers.

The view is widely held in Argentina that commercial fertilizers do not give results. There appear to be several reasons for the mixed reaction to fertilizer usage.

First, the cost of fertilizer to Argentine farmers is so large relative to the usual market price of grain that adverse weather may result in financial loss even though a fairly respectable increase in yield per hectare is obtained in comparison to the yield that would have resulted without fertilizer. Over 90 percent of all fertilizers must currently be imported, thus contributing to the high cost. For example, the cost of nitrogen fertilizer in ammonia form to an Argentine farmer has been more than 2½ times higher than to a U.S. farmer; and the cost in urea form has been about 1½ times higher. Also, until 1963, import duties were collected on fertilizers.

Second, the current flint corn varieties have been developed principally to withstand the semiarid climate of the Pampa, and research to date has not produced varieties that are both adapted to this climate and respond to fertilizer application. At one time it was thought that Argentina would shift from pure flint at least to semident hybrids because of the greater yield-increasing influence of dent inbreds. But this has not happened on a large scale because Argentina's main corn customer, Italy, is still willing to pay a premium for the orange-red flint corn. Also, semident mixtures tend to vary in kernel appearance, depending on the season; this affects the market value.

Third, with favorable weather, the Pampa soil, except where it has been cropped for many years, will still produce well enough at recent levels of returns and costs. It would appear that farmers in Argentina have not yet faced the pressures of increased land and other costs or acreage allotments that have forced farmers in the United States to continually strive for higher levels of output per unit of land.

Both commercial firms and government-sponsored experiment stations have been conducting research on fertilizer for some time. In 1968 one commercial plant began to produce liquid nitrogen, reducing the need to import this basic fertilizer. However, Argentina lacks appreciable mineral deposits of the type necessary to obtain the other two principal fertilizer elements, phosphorus and potassium.

**Use of improved plants.**—Argentine farmers have been fairly prompt in adopting improved varieties or hybrids. Almost 100 percent of the wheat area is already planted with improved varieties. Around 90 percent of the producers in the main corn area are planting hybrid seed. For the country as a whole, the use of hybrid corn is about 60 percent. Producing firms are now trying to develop strains better adapted to the marginal areas, such as northern Santa Fe, the Chaco, and southern Buenos Aires province centering on Balcarce.

Hybrid grain sorghum strains, many of U.S. combinations, are catching on fast because of high yielding ability and drought resistance. However, because of the rapid expansion of the area under this grain, there have been some shortages of hybrid seed. Varieties especially adapted to the northern areas are being developed.

**Pesticide use.**—Herbicides are in fairly general use for corn but are less commonly employed for wheat and other grains. Since the corn areas of Argentina lack killing frosts prior to harvest, herbicides are needed to eliminate heavy growths of weeds that would impede drying and increase the problem of cleaning. Insecticides are little used at present, partly because some pests, such as the corn root worm, do not exist in Argentina. On the other hand, wheat losses to pests are still high in some seasons.

**Cultivation and harvesting.**—Argentine grain production is highly mechanized from planting through harvesting. Bagging prior to the movement of grain off the farm is still a common practice in some areas due to a shortage of country elevators and a lack of ample transport. Typically, much of the harvesting in Argentina is done by contractors, who begin with wheat in the central Pampa in December and move south. Around February they take their machinery north and then follow the corn and sorghum harvests to the south.

The adoption of improved cultural practices in Argentina appears to be a slow process. Too-shallow plowing, uneven and insufficient seeding, overgrazing by cattle, and a lack of widespread use of summer fallowing are some traditional practices which, if changed, would contribute to higher yields.

One practice that has been changing is the timing of corn planting. Corn producers are finding that they can do better by planting 30 days earlier than in the past—for example, not later than early September in the northern parts of the corn zone. This procedure causes some risk of late spring frost damage but allows the crop to benefit from more of the late spring and early summer rains. This practice is resulting in earlier corn deliveries to market than in the past. New-crop corn is often available in commercial quantities as early as late February.

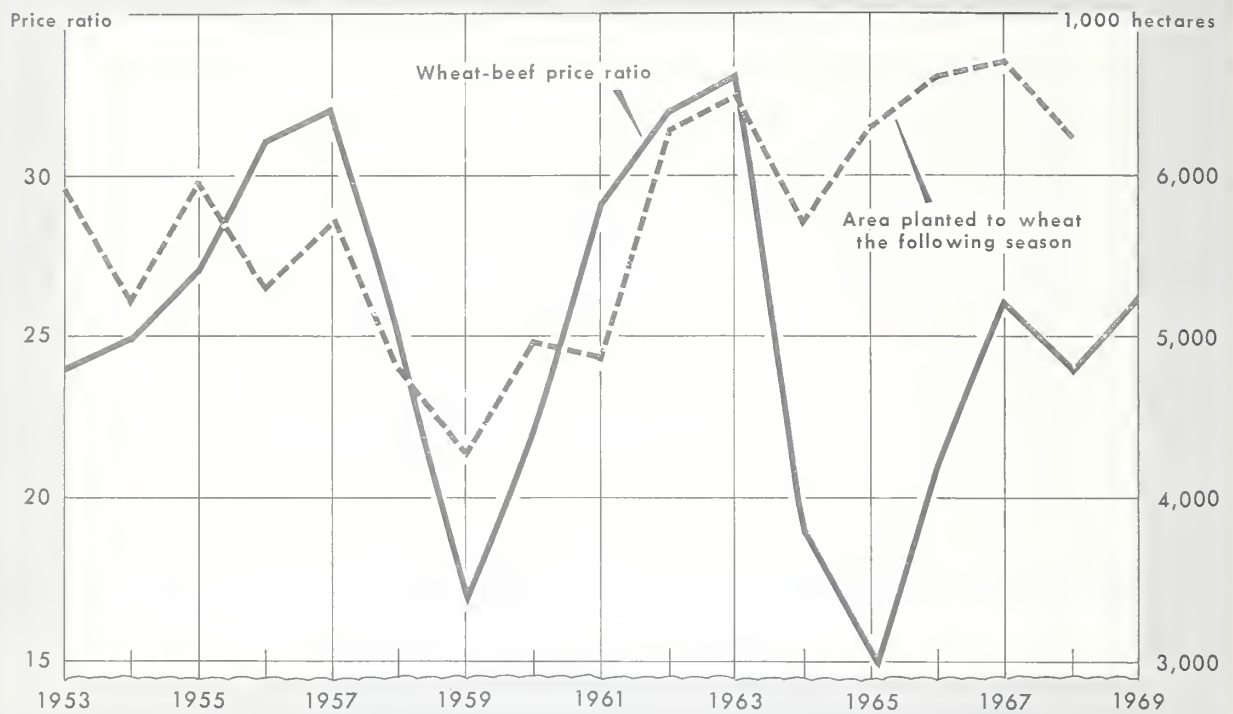
### **Plow or pasture and competition among grains**

The level of price and profit incentives to grain production on the one hand and the relationship between the price of grain and competing enterprises, particularly cattle, on the other hand appear to act as the principal determinants of grain production in Argentina. In general, Argentine farmers have tended to specialize in either cattle production or grain production, and year-to-year adjustments appear to take the form of more cattle on grain farms or increased grain plantings on cattle farms. An example of the latter has been the recent trend on the part of cattle producers in the central portion of the Pampa to have contractors plant and harvest grain on their farms. The predominant enterprise combinations and the regions where they prevail are as follows: wheat and cattle in the southwestern and western Pampa; wheat and corn in the north central Pampa; and wheat, cattle, and sorghum in the western and northern Pampa.

Comparison of annual wheat, corn, and sorghum prices with the annual plantings of wheat, corn, and sorghum shows that only the national aggregate wheat area has shown any major year-to-year shifts. The annual areas sown to corn and sorghum have tended to increase steadily despite fluctuations in the market prices of both.

In addition, the relationship of cattle prices to wheat prices appears to have a strong influence on the annual areas planted to wheat. In an accompanying chart the ratio of wheat prices to cattle market prices has been compared to the annual area planted to wheat in the succeeding year. Wheat prices relative to cattle prices are indicated to have been particularly strong in 1960, 1961, 1962, 1963, 1966, 1967, and 1968—all years followed by either increased wheat plantings or sustained high levels of plantings.

## WHEAT-BEEF PRICE RATIO<sup>Δ</sup> AND AREA PLANTED TO WHEAT THE FOLLOWING SEASON IN ARGENTINA



<sup>Δ</sup> WHEAT-BEEF PRICE RATIO DETERMINED BY DIVIDING THE CALENDAR YEAR AVERAGE MARKET PRICE PER 100 KILDS OF WHEAT BY THE CALENDAR YEAR AVERAGE MARKET PRICE PER KILD OF BEEF.

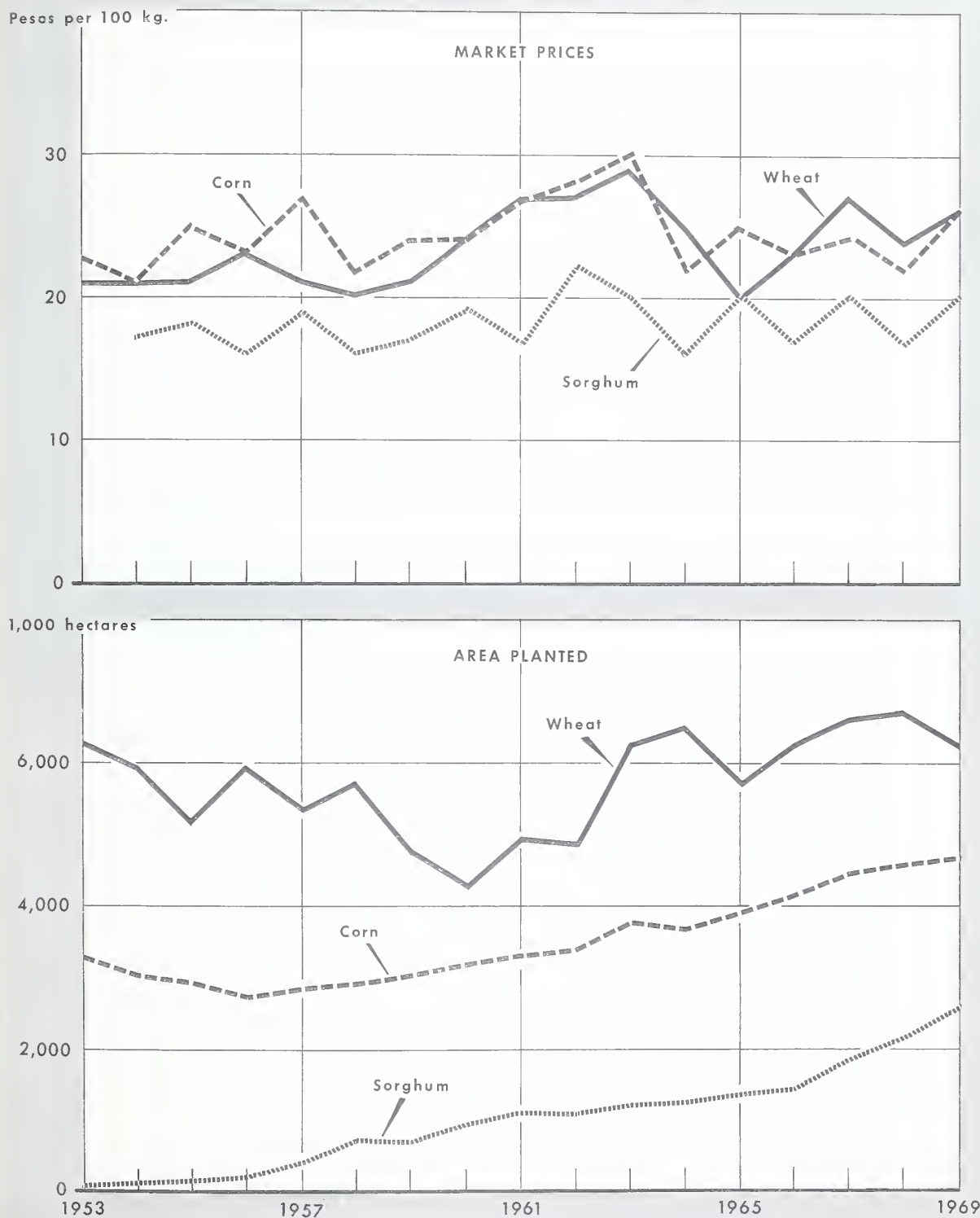
Most of the increase in wheat area has been in the south and southwestern portion of the Pampa. Plantings of durum wheat, which are limited to these areas because of climatic factors, are also increasing, from 238,000 hectares in 1961 to 413,500 hectares in 1968.

On the other hand, in the north central portion of the Pampa wheat plantings declined 28 percent between 1958-59 and 1967-68 despite an increase of 16 percent in the total national wheat area. Most of the decline in wheat production in this highly productive area is owing to wheat land being converted to corn production. The ratio of wheat to corn plantings during this period is estimated to have shifted from 50:50 to 30:70. Corn is considered to be a better alternative than wheat because corn yields have tended to be about 60 percent higher than wheat yields in this area while market prices for corn have been close to those for wheat. In some years, corn prices have been higher than wheat prices. Available studies indicate that the higher yields for corn more than offset any higher production costs. Climatic factors and the adaptability of the current corn varieties appear to have more or less limited the shift from wheat to corn to the north central Pampa.

Sorghum is a relatively new grain to Argentina and has proven to be very adaptable to the more marginal areas in the western Pampa. Sorghum is also a good insurance crop against periods of low rainfall and poor pasture conditions and is thus both a grain and pasture crop. Sorghum apparently is being planted on some land that has previously been under wheat or small grains since, like corn, the total returns from sorghum are generally higher than those for wheat.

In addition to the wheat land that has apparently been going over to corn and sorghum, there is a definite uptrend in the area sown to both grains. Both corn and sorghum plantings have been increased in nine out of the past 10 years, and the additional land brought into the cultivation of both grains during this period of time has been 3.2

# PRICES\* OF WHEAT, CORN, AND SORGHUM AND AREA PLANTED TO THESE CROPS IN ARGENTINA



\* ALL PRICES DEFLATED BY THE WHOLESALE PRICE INDEX, 1950=100.



million hectares. The major shifts which have occurred from wheat to corn have been in the north central portion of the Pampa, but corn has also gained in the northern areas of the country, particularly in the Provinces of Tucumán and Santiago del Estero in Northeast region, and in the Province of San Luis in the Monte region to the west of the Pampa.

Aside from the Pampa, the major gains in sorghum have been in the Province of Chaco to the north of the Pampa, in the Province of Santiago del Estero in the Northeast region, and in the Province of San Luis in the Monte region. Many of these gains have been on land that had previously been idle or in pastures or in cotton and sugarcane in the Chaco and Northwest regions. In many of these areas, sorghum is also being introduced as a dual-purpose crop.

A decline in both the amount of land planted to and harvested of the small grains—barley, oats, and rye—also probably contributed to the larger wheat and sorghum plantings. The production of small grains is more or less coincidental with large cattle operations in the western and southwestern Pampa, and the area taken out of production of these grains has probably been put into both wheat and grain sorghum. Over the past 10 years, plantings of the small grains have declined 25 percent, or 1.5 million hectares, and the area harvested has dropped 48 percent, or around 1.3 million hectares. The amount of land not harvested but grazed has not dropped so much, only about 5 percent, thus indicating that the shift has been away from grain production of the small grains and not away from pasturing. Thus, with the addition of sorghum, the area of grains being grazed by cattle has probably increased.

## **Production costs**

There are risks in attempting to relate costs of production in Argentina to those in other countries—such as the United States. There are vast differences in standards of living. For example, food costs are relatively low in Argentina due to the abundance of food and government policies. But many input items such as gasoline, fertilizers, and machinery are relatively expensive. Land values in Argentina appear to be low in dollar terms relative to U.S. values for similar land, but this could be influenced by the heavy concentration of the country's population in the city of Buenos Aires, the relatively low ratio of population to arable land, and the current level of productivity.

Some broad indications of costs, nevertheless, can be made. In the main corn area in 1968 contractors were charging 10,500 pesos per hectare (\$12 per acre) to carry out total operations from planting to harvesting. In that year, yields were around 2,100 kilograms per hectare. Allowing for transportation to main markets, if a farmer sold his corn in April, his revenue was around 22,500 pesos per hectare (\$26 per acre). The contractor's charge represented only the variable costs and not the other fixed costs such as taxes or interest on borrowed capital.

A study done on the cost of wheat production in the Province of Córdoba for the 1967-68 crop indicated that wheat could be delivered to the port of Rosario at a cost of 1,463 pesos per 100 kilograms (\$1.14 per bushel). This cost included a return on land, a 22-percent return on capital for 8 months, and sales taxes. During the 1967-68 season, the support price at the port of Rosario was 1,566 pesos per 100 kilograms (\$1.22 per bushel), but market prices averaged over the support level.

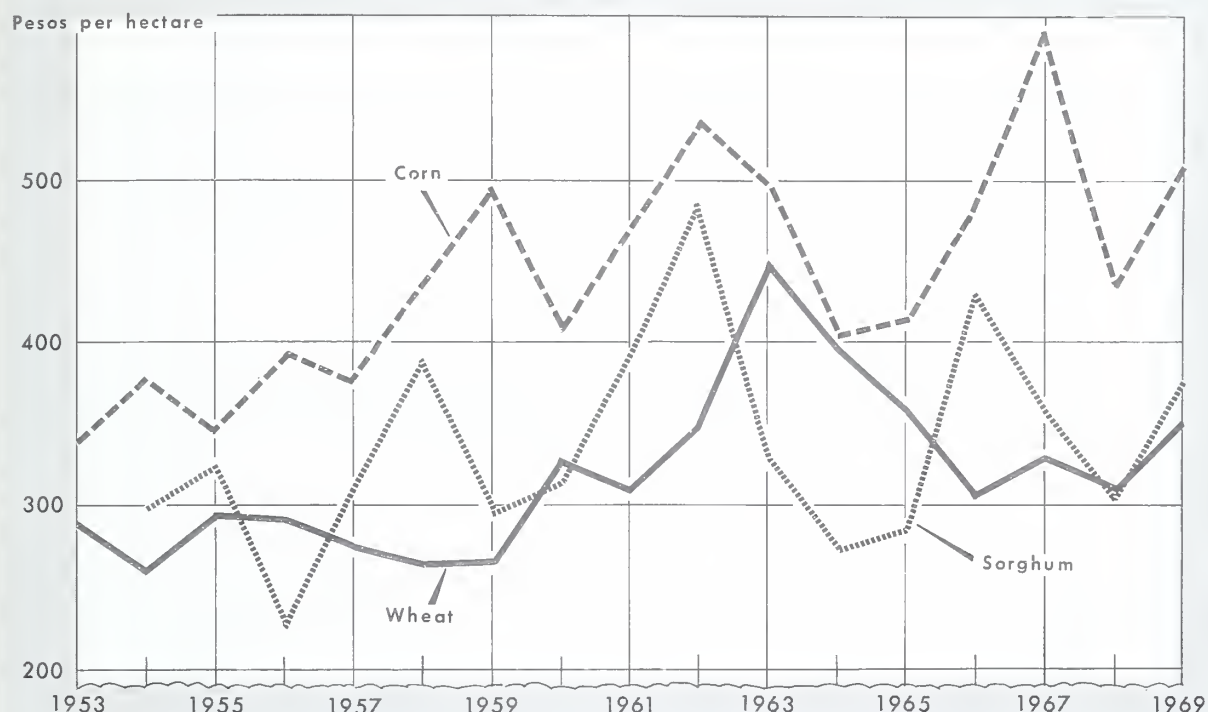
## **Farmer returns**

The market values of grain in Buenos Aires provide some indication of farmers' returns over time. After allowing for inflation, prices have both tended to reflect year-to-year changes in production and have tended to increase for wheat, corn, and sorghum.

In March 1970 it was estimated that the on-farm equivalents of the Buenos Aires market prices were around \$39.50 per metric ton (\$1.10 per bushel) for wheat, about \$31.50 per ton (\$0.80 per bushel) for corn, and approximately \$28 per ton (\$0.70 per bushel) for sorghum. These estimates included allowances for transportation and marketing costs and sales and production taxes. The transportation costs were estimated to have been the lowest for corn, which tends to be produced the closest to the main market, and the highest for sorghum. For wheat and corn, the on-farm returns were estimated as 20 percent lower than the Buenos Aires prices. On-farm returns were 25 percent less than Buenos Aires prices for sorghum.



## GROSS RETURNS PER HECTARE OF WHEAT, CORN, AND SORGHUM IN ARGENTINA\*



\* GROSS RETURNS PER HECTARE DETERMINED BY MULTIPLYING NATIONAL AVERAGE YIELD FOR EACH GRAIN TIMES THE CALENDAR YEAR AVERAGE MARKET PRICE. ALL PRICES DEFLATED BY THE WHOLESALE PRICE INDEX, 1950=100.

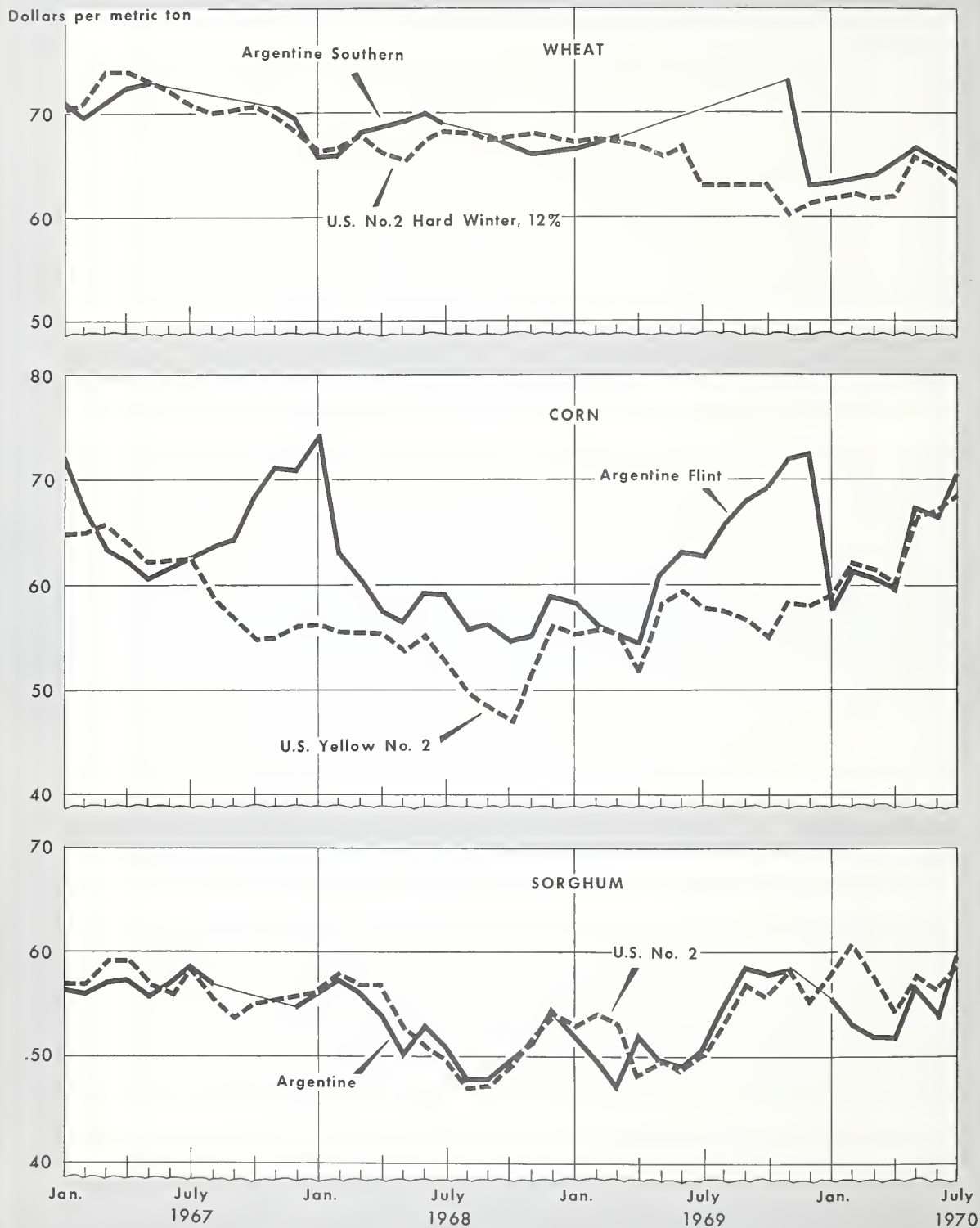
## GRAIN MARKETING SITUATION

### Competitive position

Approximately half of Argentina's grain production is exported in normal years. And despite annual variations in production, all grain usually is marketed by the end of each season. End-of-season carryover supplies have generally been minimal.

A review of price quotations of Argentine and U.S. grains in the major European market of Rotterdam shows that in the periods just preceding and following the grain harvests in Argentina (September-March for wheat and January-June for corn and sorghum) Argentine prices have fluctuated widely relative to U.S. prices. However, usually by the end of these periods, when the Argentine exportable surpluses have been disposed of, price offers of Argentine grains tend to rise, and for all practical purposes Argentine grain is out of the market until the next harvest. Actual export shipments are, however, spread over a longer period of time since it is common to have grains, especially corn and sorghum, sold for delivery 2 to 6 months later. Also, it is becoming very common for sales of new-crop corn and sorghum to begin around November, approximately 4 months prior to the commencement of the harvests.

# ARGENTINE AND U.S. GRAIN PRICES, C.I.F. ROTTERDAM\*



\* FOR WHEAT, MONTHLY AVERAGE PRICES AS REPORTED BY THE INTERNATIONAL WHEAT COUNCIL; FOR CORN AND SORGHUM, FIRST-OF-MONTH QUOTATIONS COMPILED BY FAS.

**Wheat prices and stocks.**—Argentine sales offers of wheat were occasionally absent from the major European markets during the period from 1966-67 through 1969-70, partly because exportable supplies were somewhat limited during this time. Another major factor, however, was a greater emphasis on sales to South American countries. In South America Argentina has a number of special trade arrangements that have resulted in some form of preference for Argentine wheat over wheat from other suppliers. These preferences include bilateral sales agreements with Brazil and Chile, payments agreements with a number of other countries, and preferential tariff treatment within the framework of the Latin American Free Trade Association.

During earlier periods, wheat sales to the markets of West Europe had been given the greatest emphasis. However, since Argentine freight costs are higher relative to those of other exporters, such as the United States and Canada, and since competition tends to be more intense in these hard currency markets, Argentine returns were probably lower on sales to West Europe than on sales to the nearby South American markets.

Occasional sizable purchases of wheat by the National Grain Board at a domestic support price and the virtual guarantee of large export sales under bilateral agreements have tempered wide fluctuations in Argentine wheat prices in international markets. In years of above-average wheat harvests there have been some temporary accumulations of excess supplies. But since 1960 carryover stocks have never exceeded domestic requirements, and in only 2 years (1964 and 1965) did carryover stocks exceed 50 percent of domestic requirements.

**Corn and sorghum prices and stocks.**—Although neither corn nor sorghum has been included in bilateral sales agreements and support price purchases of these two grains have been limited, carryover stocks have not exceeded 5 percent of domestic requirements since 1961.

Historically, Argentine corn has commanded a slight premium over corn from most other origins—particularly in Italy where the Argentine flint corn is preferred by poultry feeders because of its durability in transit and the coloring it produces in poultry meat and eggs. The postwar shift toward compound feeds has all but eliminated this premium in the northern European countries, but the Italian buyers are still willing to pay somewhat more for Argentine corn than for U.S. corn or corn from most other origins. The actual premium paid is difficult to determine since Argentine corn is still sold under the traditional “rye terms,” according to which the buyer may enter a claim for a reduction in price on the grounds that the quality received was lower than that specified at the time of purchase. On the other hand, U.S. sales are made on the basis of “export certificate final” as issued by the Consumer and Marketing Service of the U.S. Department of Agriculture at the time of vessel loading.

In Spain, Argentine corn appears to have some advantages over corn from most other sources because of a combination of normal freight and pricing factors and certain Spanish regulations affecting freight and levies on grain imports.

When Argentine export supplies of corn have been larger than Italy and Spain could absorb, prices have tended to drop farther than usual at harvesttime. Such price drops occurred in 1967 when production was a postwar record and again in 1970 when a new postwar high was reached.

Argentine sorghum values have generally tended to follow U.S. sorghum values, except during the pre- and post-harvest periods, when Argentine sorghum has tended to be offered at discounts relative to U.S. sorghum. Japan has become the leading market for both U.S. and Argentine sorghum since the establishment of the European Community's common threshold prices (minimum import prices) and levies in 1967. The EC threshold prices and levies have resulted in sorghum prices to EC feed compounders which, in light of European conditions and preferences and for most types of rations, make sorghum unattractive relative to corn or other imported feed ingredients.

## **Domestic demand**

Due to a lack of detailed statistics, Argentina's domestic consumption of grains, particularly feedgrains, is best approximated by using apparent annual disappearance levels reflecting production plus imports, if any, less exports and adjusted for any reported stocks changes. Trends derived from such data indicate that the domestic disappearance of wheat is remaining rather stable, the disappearances of corn and sorghum have been increasing rapidly, and the domestic demands for the small grains—barley, oats, and rye—have been declining.

**Wheat.**—Argentina is one of the world's heaviest per capita consumers of wheat and wheat products. But as in many other large wheat-producing countries, per capita consumption has recently been declining. Reports by the

National Grain Board on wheat sales to mills and other processors indicate that sales have been going up at a rate of only around 1.3 percent per year compared with a population increase of around 1.6 percent. Normally, very little wheat is used for other than seed or milling in Argentina. But in January 1969 a feed grade of wheat was temporarily established because of an unusual quantity of lightweight wheat in that year's harvest. In total, the annual domestic disappearance of wheat averaged around 4.2 million metric tons between 1966-67 and 1968-69.

Domestic disappearance of wheat in Argentina

Year	Disappearance			
	Human <sup>1</sup>	Seed <sup>2</sup>	Other <sup>3</sup>	Total
Average, 5-year:	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
1951-55 .....	2,740	567	3	3,310
1956-60 .....	3,149	521	198	3,868
1961-65 .....	3,102	566	-44	3,624
Annual:				
1965-66 .....	3,059	629	17	3,705
1966-67 .....	3,184	661	299	4,108
1967-68 .....	3,235	668	427	4,330
1968-69 <sup>4</sup> .....	3,275	624	208	4,107

<sup>1</sup> Human use figures are based on the National Grain Board's reports on sales to mills and other processors. <sup>2</sup> Seed use is calculated on the basis of a seeding rate of 100 kg. per ha. in the succeeding season. <sup>3</sup> Other use is residual.

<sup>4</sup> Preliminary.

**Corn and sorghum.**—Concurrent with the recent increase in the production of corn has been apparently larger domestic use of this grain. But as a percentage of production, domestic corn disappearance has declined from a 1952-56 average of 70 percent to an average of 45 percent during the 1966-67 to 1968-69 period. Likewise, sorghum disappearance as a percentage of production declined from a 1957-61 average of 82 percent to 58 percent during the most recent 3 years despite a sharp rise in the volume of grain sorghum consumed in Argentina. The National Grain Board reports that the volume of corn and sorghum "industrialized," or sold commercially, which includes sales to millers, processors, and feed manufacturers, was 611,400 tons of corn and 168,200 tons of sorghum in 1969. On the other hand, total annual domestic consumptions of corn and sorghum were estimated at about 3.1 million and 1.1 million tons during the 1969-70 marketing season. This suggests that most of the corn and sorghum consumption takes place in the producing areas and demonstrates that the domestic commercial demand takes a relatively minor portion of Argentina's corn and sorghum production.

The recent rise in the domestic use of corn and sorghum appears most closely related to some emergency cattle feeding, an increased demand for grain for feeding to poultry and hogs, and a decline in the domestic use of the small grains. Grain is not normally fed to cattle because of the claim that "grass is always cheaper;" however, there has apparently been some temporary feeding during periods when pastures were poor to maintain herds. In 1962 there was a very severe drought which resulted in a sharp drop in cattle numbers. But, since 1962, despite several lesser droughts, cattle numbers have continued to increase and have been sustained during the drought periods on previously stored feed reserves. Even monthly marketings of cattle have not tended to respond as substantially to poor pasture conditions as was the case prior to 1962.

Poultry meat production rose sharply in Argentina from 83,000 tons in 1964 to a high of 143,000 tons in 1965 and then leveled off to between 108,000 and 120,000 tons in later years—thus creating a demand for grain. Hog numbers have also risen steadily to increase the domestic demand for grain. All of this demand for feedgrain has been met by corn and sorghum since the total apparent domestic use as well as the volume of the small grains "industrialized" have been declining.



**Domestic disappearance of feedgrains, cattle and hog numbers, and poultry meat production in Argentina**

Year	Feedgrain disappearance				Cattle	Hogs	Poultry meat production
	Corn	Sorghum	Barley oats, and rye	Total			
Average, 5-year:	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 head</i>	<i>1,000 head</i>	<i>1,000 metric tons</i>
1952-56 . . . . .	2,123	27	1,404	3,554	41,550	3,347	( <sup>1</sup> )
1957-61 . . . . .	2,330	353	1,988	4,671	43,385	3,608	( <sup>1</sup> )
1962-66 . . . . .	2,290	726	1,281	4,297	42,983	3,400	92
Annual:							
1966-67 . . . . .	3,029	1,086	1,011	5,126	47,000	4,000	116
1967-68 . . . . .	3,853	964	1,046	5,863	<sup>2</sup> 51,227	4,000	108
1968-69 <sup>3</sup> . . . . .	3,151	1,087	1,071	5,309	51,465	3,800	120
1969-70 <sup>3</sup> . . . . .	3,120	1,130	--	--	--	--	--

<sup>1</sup> Not available.

<sup>2</sup> Aug. 31.

<sup>3</sup> Preliminary.

Sources: Feedgrain disappearances from tables in the Appendix. Cattle and hog numbers at June 30 based on official estimates and estimates made by the U.S. Agricultural Attaché. Poultry meat production from reports from the U.S. Agricultural Attaché.

**Quantities of feedgrains "industrialized" in Argentina**

Year	Corn	Sorghum	Small grains <sup>1</sup>	Total
Average, 5-year:	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
1950-54 . . . . .	167.7	--	<sup>2</sup> 115.9	283.6
1955-59 . . . . .	217.8	--	137.6	355.4
1960-64 . . . . .	228.0	80.0	91.9	399.9
Annual:				
1965 . . . . .	405.4	138.8	96.1	640.3
1966 . . . . .	409.9	127.9	72.4	610.2
1967 . . . . .	410.7	116.8	90.5	618.0
1968 . . . . .	523.3	149.6	91.8	764.2
1969 . . . . .	611.4	168.2	91.5	871.1

<sup>1</sup> Barley, oats, and rye.

<sup>2</sup> Only barley and rye.

Source: National Grain Board.

## Internal marketing

Grain is usually collected from farmers in Argentina in the countryside either by private grain merchants (acopiadores) or by cooperatives. These in turn consign the grain to brokers or commissionmen in the major markets, and only at the city markets are the volumes sufficiently large to be assembled for export. Consequently, export firms purchase most of the grains for resale overseas at these city markets. The export firms purchase some grain directly from the large farms, a practice which is increasing. Conversely, some of the larger cooperatives enter directly into export sales.

Sales made to the National Grain Board under the support program generally follow the route of country merchant to broker to the Board. Although there are appropriate discounts for delivery to inland Board facilities, most wheat tends to be delivered to the port facilities where the basic support prices are established.

Limited on-farm storage as well as internal storage and a desire on the part of farmers to acquire ready cash has generally resulted in a rapid flow of grain into the main grain ports at harvesttime. Wheat is the first crop to arrive, and several months later as the result of the port limits and export opportunities it is not uncommon to have trucks carrying corn and sorghum, from their later harvests, lined up for 1 or 2 weeks waiting to unload. The seasonal lineups are generally at the upriver ports and sometimes at the port of Buenos Aires.

Trucks are the main mode of internal grain transit and carried 64 percent of all grain moved to all of the ports between 1962 and 1968 and 73 percent of all of the grain moved to the upriver ports during this time. Rail transportation has tended to be cheaper, but it often takes longer, and most of the rolling stock is obsolete and has

only been modified for grain. Most of the grain moved for export is handled in bulk, but bagging is still a common practice for grain going into the domestic market. The railroads are attempting to gain back the business lost to the trucks over the years, and very recently, hopper-type cars have been put into operation. The number of these cars is expected to increase in the future.

Numbers and types of grain buyers and merchants in Argentina

Classification	Firms. November 30, 1959	Firms. June 12, 1968
	<i>Number</i>	<i>Number</i>
Local merchants (acopiadores) . . . . .	1,633	1,918
Small merchants . . . . .	393	239
Cooperatives . . . . .	689	556
Elevator buyers . . . . .	5	3
Millers and processors . . . . .	318	276
Brokers and commissionmen . . . . .	379	305
Exporters . . . . .	285	103
Total . . . . .	3,702	3,400

Source: National Grain Board.

## Main ports

Several years ago it was thought that port facilities might have been placing a limit on the Argentine ability to export grain. But changes in labor practices and some modernization programs have greatly expanded handling capacity in most ports. Major ports are still unable, however, to receive the larger ocean-going tankers.

In 1966 over 10 million tons of grain were exported. And although the annual volumes have been less in later years, during April and May of 1967, 1.3 million and 1.1 million tons of grain were shipped.

The main ports are Buenos Aires on the mouth of the River Plate, Villa Constitución, Rosario, and Santa Fe farther upstream on the Paraná River, and Quequén and Bahía Blanca on the Atlantic. The water depth at the main upriver ports is only around 25 feet, and vessels loading mostly corn and sorghum at these ports must complete loading at Buenos Aires, which has a water depth of approximately 34 feet. Cargo size of the vessels partly loading upriver and completing loading in Buenos Aires is limited to around 20,000 to 25,000 tons. The port of Bahía Blanca can receive vessels with up to 34 feet of draft, but vessels loading at Quequén, where the water depth is around 27 feet, must complete loading at either Bahía Blanca or Buenos Aires. Both Quequén and Bahía Blanca are principally wheat ports. Cargoes of over 30,000 tons have been loaded at Bahía Blanca, and in 1970 a program was underway to deepen this port so that tankers with a capacity of up to 50,000 tons could be received.

Export of grain by port area in Argentina

Year and port	Wheat	Corn	Grain sorghum	Barley	Oats	Rye	Millet	Birdseed	Total
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
1969:									
Bahía Blanca . . . . .	1,239.1	( <sup>1</sup> )	—	98.8	28.5	13.1	2.1	—	1,381.7
Quequén . . . . .	687.3	—	—	11.3	99.6	—	—	—	798.2
Mar del Plata . . . . .	88.0	8.5	—	—	.5	—	—	—	97.0
Buenos Aires . . . . .	29.7	1,485.4	460.6	76.0	8.5	—	39.6	13.9	2,113.7
Villa Constitución <sup>2</sup> . . . . .	159.5	553.9	—	—	—	—	—	—	713.4
Rosario <sup>3</sup> . . . . .	106.0	1,705.9	443.0	21.5	—	.3	54.6	—	2,331.3
Santa Fe <sup>4</sup> . . . . .	24.1	304.3	427.7	—	—	—	22.7	—	778.8
Concepción del Uruguay <sup>5</sup> . . . . .	20.1	—	—	—	—	—	—	.2	20.3
Other <sup>6</sup> . . . . .	1.7	3.8	—	—	—	—	—	—	5.5
Total . . . . .	2,357.0	4,061.8	1,331.2	207.6	137.0	13.4	119.1	14.1	8,241.3



Export of grain by port area in Argentina—Continued

Year and port	Wheat	Corn	Grain sorghum	Barley	Oats	Rye	Millet	Birdseed	Total
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
1968:									
Bahía Blanca . . . . .	1,242.0	—	—	69.5	58.3	21.6	—	—	1,391.4
Quequén . . . . .	743.8	—	—	17.0	244.4	—	—	—	1,005.2
Mar del Plata . . . . .	103.6	—	—	—	6.1	—	—	—	109.7
Buenos Aires . . . . .	46.8	1,010.8	128.6	66.4	20.1	.7	37.0	9.3	1,319.7
Villa Constitución <sup>2</sup> . . . . .	57.0	279.1	—	—	—	—	—	—	336.1
Rosario <sup>3</sup> . . . . .	180.0	1,548.5	250.8	24.2	—	—	74.0	—	2,077.5
Santa Fe <sup>4</sup> . . . . .	19.8	69.8	139.1	—	—	—	43.5	—	272.2
Concepción del Uruguay <sup>5</sup> . . . . .	19.9	—	—	1.1	0.2	—	—	—	21.2
Other <sup>6</sup> . . . . .	0.8	4.0	—	—	—	—	—	—	4.8
Total . . . . .	2,413.7	2,912.2	518.5	178.2	329.1	22.3	154.5	9.3	6,537.8
1967:									
Bahía Blanca . . . . .	950.8	( <sup>1</sup> )	—	34.4	22.7	3.4	—	—	1,011.4
Quequén . . . . .	691.1	—	—	7.2	175.2	—	—	—	873.6
Mar del Plata . . . . .	99.3	—	—	—	.7	—	—	—	100.0
Buenos Aires . . . . .	72.9	1,436.4	122.0	17.8	( <sup>1</sup> )	—	51.1	18.9	1,719.2
Villa Constitución <sup>2</sup> . . . . .	129.0	556.5	.2	—	—	—	—	—	685.7
Rosario <sup>3</sup> . . . . .	62.1	2,103.9	191.3	6.6	—	—	107.6	—	2,471.5
Santa Fe <sup>4</sup> . . . . .	37.4	221.6	195.4	—	—	—	53.8	—	508.1
Concepción del Uruguay <sup>5</sup> . . . . .	10.9	—	—	0.2	—	—	—	.1	11.2
Other <sup>6</sup> . . . . .	.7	—	—	—	—	—	—	—	.7
Total . . . . .	2,054.3	4,318.4	508.9	66.3	198.7	3.4	212.5	19.0	7,381.5

<sup>1</sup> Less than 50 tons. <sup>2</sup> Includes San Nicolás, San Pedro, and Romallo. <sup>3</sup> Includes San Lorenzo. <sup>4</sup> Includes Diamante, Barranqueras, Pueblo Brugo, La Paz, Villa Hernandarias, Paraná, and Posadas. <sup>5</sup> Includes Paso de los Libres. <sup>6</sup> Includes La Quiaca and Los Cuevas.

## Domestic pricing

Domestic prices of grain in Argentina tend to reflect world market values less the export tax margins.

The most important market for wheat is in the city of Buenos Aires, and it is this market that usually sets the price levels for the rest of the country. Other important wheat markets are at the upriver port of Rosario and at the Atlantic ports of Bahía Blanca and Quequén. Corn and sorghum are also traded in Buenos Aires, but shipping is mostly through the upriver ports of Rosario and Santa Fe.

There is futures trading of all grains in Buenos Aires and of corn in Rosario and Santa Fe. The futures markets have not been important as price determiners owing to the uncertainties created by the high rate of inflation and the frequent changes that have occurred in the levels of the export taxes. Markets have basically reflected the spot cash price plus carrying charges. However, with increasing economic stability since 1968, the futures markets have been assuming a more important role.

Support prices for grains are announced annually, and through 1968 these prices were generally adjusted upward each year to reflect increasing production costs and the general upward trend of all prices in Argentina. A support price is the price at which the National Grain Board is obligated to purchase all of a grain offered to it. The support price has also been a minimum trading price below which private sales are not legally allowed.

Wheat has been the only grain purchased in sizable quantities at support prices by the National Grain Board. Support prices are paid on the basis of delivery to Buenos Aires with discounts for delivery to other Board installations.

# Support prices for wheat, corn, and sorghum in Argentina

Crop year	Local currency rates			December exchange rate	April exchange rate	Converted at exchange rate at time of harvest			Deflated and converted at constant exchange rate <sup>1</sup>		
	Hard wheat	Flint corn	Sorghum			Hard wheat	Flint corn	Sorghum	Hard wheat	Flint corn	Sorghum
	Argentine pesos per 100 kilo-grams	Argentine pesos per 100 kilo-grams	Argentine pesos per 100 kilo-grams	Argentine pesos per U.S. dollar	Argentine pesos per U.S. dollar	U.S. dollars per bushel	U.S. dollars per bushel	U.S. dollars per bushel	U.S. dollars per bushel	U.S. dollars per bushel	U.S. dollars per bushel
1960-61 ..	380	300	180	82.70	82.85	1.25	0.92	0.55	1.25	0.92	0.55
1961-62 ..	430	340	220	83.02	99.70	1.41	.87	.56	1.30	.96	.62
1962-63 ..	650	480	370	134.10	137.20	1.32	.89	.69	1.51	1.04	.80
1963-64 ..	820	600	450	132.50	137.00	1.68	1.11	.83	1.48	1.01	.76
1964-65 ..	780	600	490	150.90	171.50	1.41	.89	.73	1.12	.80	.65
1965-66 ..	820	750	500	188.50	188.80	1.18	1.01	.67	.94	.80	.54
1966-67 ..	1,200	1,000	750	247.30	350.00	1.32	.73	.54	1.15	.90	.67
1967-68 ..	1,500	1,250	930	350.00	350.00	1.17	.91	.67	1.15	.89	.66
1968-69 ..	1,650	1,350	1,050	350.00	350.00	1.28	.98	.76	1.15	.88	.68
1969-70 ..	1,650	1,350	1,050	350.00	350.00	1.28	.98	.76	1.09	.83	.65
1970-71 ..	1,650	1,400	1,100	2 400.00	2 400.00	1.12	.89	.70			

<sup>1</sup> Wholesale price index 1960-61=100, 1961-62=108, 1962-63=141, 1963-64=182, 1964-65=229, 1965-66=285, 1966-67=341, 1967-68=429, 1968-69=470, 1969-70=497. Constant 1960-61 exchange rate of 83 Argentine pesos per U.S. dollar. <sup>2</sup> Assuming the June 1970 exchange rate.

# Minimum trading prices for wheat, corn, and sorghum in Argentina

Crop year	Local currency rates			December exchange rate	April exchange rate	Converted at exchange rate at time of harvest			Deflated and converted at constant exchange rate <sup>1</sup>		
	Hard wheat	Flint corn	Sorghum			Hard wheat	Flint corn	Sorghum	Hard wheat	Flint corn	Sorghum
	Argentine pesos per 100 kilo-grams	Argentine pesos per 100 kilo-grams	Argentine pesos per 100 kilo-grams	Argentine pesos per U.S. dollar	Argentine pesos per U.S. dollar	U.S. dollars per bushel	U.S. dollars per bushel	U.S. dollars per bushel	U.S. dollars per bushel	U.S. dollars per bushel	U.S. dollars per bushel
1966-67 ..	1,000	850	650	247.30	350.00	1.10	0.62	0.47	0.96	0.76	0.58
1967-68 ..	1,300	1,100	830	350.00	350.00	1.01	.80	.60	.99	.78	.59
1968-69 ..	1,450	1,250	900	350.00	350.00	1.13	.91	.65	1.01	.81	.59
1969-70 ..	1,450	1,300	1,000	350.00	350.00	1.13	.94	.73	.96	.80	.62

<sup>1</sup> Wholesale price index 1960-61=100, 1961-62=108, 1962-63=141, 1963-64=182, 1964-65=229, 1965-66=285, 1966-67=341, 1967-68=429, 1968-69=470, 1969-70=497. Constant 1960-61 exchange rate of 83 Argentine pesos per U.S. dollar.

For the 1966-67 through 1969-70 crop years there were also separate minimum trading prices for each grain. During this period wheat support prices were 10 to 15 percent higher than the minimum trading prices, and the support prices for corn and sorghum were 5 to 15 percent higher than the minimum trading prices. The change to the dual price system recognized a practice that had been in existence for some time. Farmers had been often willing to sell at prices below the support levels for ready cash rather than wait for the support price, part of which was deferred. This desire to obtain ready cash was stimulated by the high rate of inflation, a lack of ample internal storage facilities, and the paper processing associated with sales to the Board. Of the support price, 70 percent had been paid at time of delivery and the balance in 90 days with interest. For the 1969-70 crop, 90 percent of the support price was paid at the time of delivery.

In June 1970 the government announced that for the 1970-71 crops there would be only a single support-minimum trading price for each grain. Thus, for the grain harvests that would follow that date, there would no longer be a spread between the support prices and the prices below which private trades could be made. The announcement especially excluded discounts from the support price for commissionmen's and brokers' fees. In effect, this should result in domestic price levels somewhat over the basic support levels. For the support prices for the 1970-71 crops, 90 percent are to be paid out within 10 working days from delivery and the balance in 90 days.

The June 1970 announcement also introduced decreasing premiums for deferred deliveries of wheat and grain sorghum. For wheat, the basic support price will apply through February 1971 and will be increased three times—in March, April, and for May through September. But the price will drop back to the basic level in October 1971. The basic sorghum support price is to hold through April 1971, be increased four times in May, June, July, and for August through December, and drop back to the basic rate in January 1972.

Seasonal adjustments in the support prices in Argentina have only been made on one previous occasion—for the 1963-64 wheat crop. At that time there were equal adjustments applied in each of the first 3 months following the harvest, but the highest rate reached in March applied for the balance of the season. However, because National Grain Board purchases were large (5 million tons) and because at least some of the wheat acquired had to be disposed of at a loss, the support price was cut back 11 percent for the following crop.

Market prices for wheat have tended to average above the support price with the notable exception of 1964-65 when an alltime high production was accompanied by large carry-in supplies. However, in the period just following the harvest when markets are usually glutted, market prices for wheat have frequently dropped below the support price.

Corn and sorghum prices have tended to remain above the support levels even though experiencing a seasonal pattern similar to wheat. The price supports for corn and sorghum in Argentina have been set at approximately 82 percent and 64 percent, respectively, of the wheat support compared with 84 percent and 72 percent, respectively, in the United States. However, mainly as a reflection of world market-value relationship, domestic market values of corn and sorghum have tended to be closer to wheat than in the United States. And in several years corn market values have been even higher than those for wheat.

Argentine National Grain Board support purchases

Crop year	Wheat		Corn		Oats		Barley		Rye		Sorghum	
	1,000 metric tons	Percent of production	1,000 metric tons	Percent of production	1,000 metric tons	Percent of production	1,000 metric tons	Percent of production	1,000 metric tons	Percent of production	1,000 metric tons	Percent of production
1961-62.	900.3	15.7	—	—	0.7	0.1	0.6	0.1	1.9	0.4	—	—
1962-63.	328.4	5.8	—	—	81.9	16.8	8.6	2.5	9.9	6.1	—	—
1963-64.	4,953.1	55.4	1.4	( <sup>1</sup> )	34.7	3.8	51.5	5.0	9.3	1.7	—	—
1964-65.	6,952.0	61.7	—	—	0.5	( <sup>1</sup> )	5.1	0.6	10.2	1.6	—	—
1965-66.	1,901.5	31.3	2.6	( <sup>1</sup> )	12.0	2.5	—	—	—	—	—	—
1966-67.	197.5	3.2	( <sup>2</sup> )	( <sup>1</sup> )	—	—	—	—	—	—	( <sup>2</sup> )	( <sup>1</sup> )
1967-68.	2,215.5	29.4	123.1	1.7	7.4	1.1	8.2	1.6	1.3	0.4	4.8	0.2
1968-69.	<sup>3</sup> 570.6	10.0	2.9	( <sup>1</sup> )	0.6	0.1	19.1	3.4	—	—	21.2	1.5
1969-70 <sup>4</sup>	2,149.1	32.7	1.8	( <sup>1</sup> )	30.5	7.2	79.8	14.0	0.9	0.2	60.5	1.6

<sup>1</sup> Less than 0.05 percent.  
1970.

<sup>2</sup> Less than 50 tons.

<sup>3</sup> Included 52,804 tons of Grade 4.

<sup>4</sup> Through June 30,

Source: National Grain Board.

## Grading and classification

**Wheat.**—Market prices for wheat are quoted on the basis of hard wheat (duro), semihard (semiduro), and durum (fideos or candeal/taganrock). There are premiums and discounts associated with grade and also with the zone in which the wheat is produced. There are three grades of common wheat and three of durum. The four wheat-producing zones are Rosafé in north central Argentina, Buenos Aires to the west of the city of Buenos Aires, Bahía Blanca in the southern and southwestern portion of the country, and Entre Ríos in the north. Frequently, wheat shipped from the ports north of Buenos Aires is referred to as “upriver” while wheat originating in the Bahía Blanca zone is referred to as “southern”. “Upriver” wheat has tended to be lighter in weight due to climatic factors and has usually been traded in international markets at a discount under “southern.”

In export sale contracts the shippers use the official wheat grades but may supplement these in individual shipments. For example, to destinations where quality considerations are important, the shipper may guarantee higher test weight than required by the official standard for the grade and may guarantee a minimum protein level, which is not covered in the official standard.

Argentine official grades for common wheat (*Triticum vulgare*)

Grade	Condition of grain	Minimum natural weight	Maximum limit of foreign material, broken and damaged kernels, excluding weevil-damaged kernels and weevil-eaten germ <sup>1</sup>		Maximum limit of yellow berry grain	Maximum limit of smutty grain
			Heat-damaged, rye, durum, and taganrock	Total		
		<i>Kilograms per hectoliter</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1	Natural, sound and dry . . .	78.0	0.50	2.0	10.0	0.10
2	..... Do . . . . .	75.0	1.00	3.0	20.0	0.20
3	..... Do . . . . .	72.0	1.50	4.5	30.0	0.30
4 <sup>2</sup>	..... Do . . . . .	—	—	—	—	—

<sup>1</sup> Wild oats, grains of other cereals, broken kernels, rye, and durum and taganrock wheat computed at 50 percent of their weight. For all grades there is a maximum limit of 5 percent of weevil-eaten germ and eight sweetclover seeds for each 100 gr. of wheat. The maximum limit of weevil-damaged kernels is established according to season, the initial allowance being 0.5 percent.

<sup>2</sup> The National Grain Board can establish a Grade 4 with specifications according to the season. For the 1968-69 season a Grade 4 was established with a minimum natural weight of 67 kg. per hl.

Source: National Grain Board.

Argentine official grades for durum wheat (*Triticum durum* and *Triticum polonicum*)

Grade	Color	Minimum natural weight	Maximum limit of foreign material, broken and damaged kernels, excluding weevil-damaged kernels and weevil-eaten germ <sup>1</sup>		Maximum limit of yellow berry grain	Maximum limit of smutty grain
			Heat-damaged and/or rye	Total		
		<i>Kilograms per hectoliter</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1	. . Superior. .	78.0	0.50	3.0	5.0	0.10
2	. . Normal . .	75.0	1.00	4.0	10.0	0.20
3	. . Inferior . .	72.0	1.50	5.5	15.0	0.30
4 <sup>2</sup>						

<sup>1</sup> Wild oats, grain of other cereals, broken kernels, rye, and bread wheat are computed at 50 percent of their weight. For all grades there is a maximum limit of 5 percent of weevil-eaten germ and eight sweetclover seeds for each 100 gr. of wheat. The maximum limit of weevil-damaged kernels is established according to season, the initial allowance being 0.5 percent.

<sup>2</sup> The National Grain Board can establish a Grade 4 with specifications according to season.

Source: National Grain Board.



**Corn and sorghum.**—Commercially, corn is either classified as hard (flint) or dent. There are usually discounts for dent corn, but the quantities of this type of corn are rather limited in Argentina. There are no official grades for corn, and corn is generally traded on an FAQ (fair average quality) basis with certain standards adjusted according to the season.

However, there are certain minimum standards or tolerances. For example, the moisture limit for corn destined for export is 15 percent of natural corn and 14 percent of corn that has been artificially dried. Corn destined for the domestic market has a moisture limit of 16.5 percent. Damaged grain is generally limited to 2 percent of total content and green grain 0.5 percent, but both of these tolerances are subject to seasonal changes. The tolerance for insect damage without price discounts being applied is 3 percent. The tolerance for broken grain is 5 percent and for foreign material 1 percent.

There are also no official grades for sorghum. The moisture content of sorghum destined for export is limited to 15 percent and that of sorghum for domestic sale is 16 percent. Other tolerances subject to seasonal adjustments or that, if exceeded, entail price discounts, are: other grains, 7 percent; foreign material, 4 percent; broken grain, 10 percent; damaged grain, 2 percent; smutty grain, 0.3 percent; and insect damage, 1 percent. Sale contracts for corn and sorghum often, however, contain more stringent specifications.

The National Grain Board is responsible for grading and issuing certificates of quality for all grain exports. The Board also determines the seasonal adjustments in tolerances that are made and the discounts that are permitted for deliveries deviating from the tolerance limits.

## Export taxes

There are two types of export taxes on grain—specific-purpose taxes and retention taxes.

The specific taxes have remained constant over time and are used to support agricultural research, construct highways, maintain the port elevators and construct new ones, pay for statistical services, and defray the operating expenses of the National Grain Board. These taxes amount to 5.3 percent on wheat and 4 percent on corn and sorghum.

The retention taxes have generally been increased in conjunction with devaluations of the peso and reduced with subsequent increases in the levels of domestic prices. The result of increasing retention taxes following devaluations has been to maintain export prices in terms of other currencies, such as the U.S. dollar, but to hold back domestic price levels by establishing a margin between domestic and export prices. For example, following the March 1967 devaluation of the Argentine peso, a 25-percent tax was applied to all grain exports. Later the wheat tax was reduced to 18 percent in November 1967, when new-crop wheat started to move into the domestic market, and was reduced still further to 6 percent in October 1968. Following the devaluation of June 1970 of the peso, the 6-percent retention tax on wheat was raised to 18.5 percent but lowered to 17 percent in July 1970.

The specific-purpose taxes and the retention taxes are charged against government-established export index values rather than actual export sales prices. The advantage of this system is that the amount of the ad valorem taxes becomes constant. The export index values are expressed in U.S. dollars per metric ton and are periodically adjusted to reflect changes in world price levels.

Argentine export index values and export taxes as of August 1970

Grain	Export index value	Special-purpose taxes					Retention tax
		Research	Grain Board	Elevator construction	Highway construction	Statistical services	
	<i>U.S. dollars per metric ton</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Bread wheat . . . . .	<sup>1</sup> 59	1.5	1.0	1.5	1.0	0.3	17.0
Durum wheat . . . . .	<sup>2</sup> 57	1.5	1.0	1.5	1.0	0.3	17.0
Corn . . . . .	52	1.5	1.0	1.5	—	—	19.0
Sorghum . . . . .	43	1.5	1.0	1.5	—	—	19.0
Oats . . . . .	44	1.5	1.0	1.5	1.0	0.3	18.0
Barley . . . . .	40	1.5	1.0	1.5	1.0	0.3	11.0

<sup>1</sup> US \$56 per metric ton on sales to Pacific areas.

<sup>2</sup> US \$54 per metric ton on sales to Pacific areas.

The export index values also serve as a minimum in calculating the exporter's foreign exchange obligation. The exporters must convert foreign currencies to Argentine pesos in a per unit amount at least equal to the index value. Thus, the index values represent a form of minimum export price.

Argentine wheat, corn, and sorghum export retention taxes starting  
September 1966

Date	Grain		
	Wheat	Corn	Sorghum
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
September 1966 . . . . .	5	16	16
October 1966. . . . .	0	16	16
January 1967. . . . .	0	0	0
March 1967 . . . . .	25	25	25
November 1967 . . . . .	18	25	25
February 1968 . . . . .	18	18	18
October 1968 . . . . .	6	18	18
February 1969. . . . .	6	8	8
June 1970 . . . . .	18.5	20.5	20.5
July 1970. . . . .	17.0	19.0	19.0

Argentine export index values starting February 1967

Date	Grain			
	Bread wheat	Durum wheat	Corn	Sorghum
	<i>U.S. dollars per metric ton</i>	<i>U.S. dollars per metric ton</i>	<i>U.S. dollars per metric ton</i>	<i>U.S. dollars per metric ton</i>
February 1967 . . . . .	59	63	55	46.50
March 1967 . . . . .	59	62	50	45
January 1968. . . . .	55	60	50	45
April 1968 . . . . .	55	60	47	41
August 1968 . . . . .	55	60	45	41
October 1968 . . . . .	<sup>1</sup> 59	<sup>2</sup> 65	45	39
June 1969 . . . . .	59	65	51	39
January 1970. . . . .	59	63	51	39
February 1970 . . . . .	59	63	48	39
March 1970 . . . . .	59	60	48	39
April 1970 . . . . .	59	57	48	39
August 1970 . . . . .	59	57	52	43

<sup>1</sup> US \$56 per metric ton on sales to Pacific areas.  
Pacific areas.

<sup>2</sup> US \$62 per metric ton on sales to

## Export pricing

A rough approximation of export prices can be determined by adding the export taxes and loading and port charges to the domestic price. However, as with the export systems in the United States, there can be deviation from this simple formula, mostly owing to the different ports at which the grain is to be loaded, the timing of the



exporter's purchase of the grain in the domestic market, and where the grain was purchased in Argentina. The following are hypothetical calculations of wheat, corn, and grain sorghum export prices based on conditions in mid-August 1970.

	<i>Wheat export prices in U.S. dollars per metric ton</i>	<i>Corn export prices in U.S. dollars per metric ton</i>	<i>Sorghum export prices in U.S. dollars per metric ton</i>
Domestic prices, Buenos Aires prices . . . . .	<sup>1</sup> 46.25	<sup>1</sup> 45.50	<sup>1</sup> 38.00
Specific export taxes . . . . .	<sup>2</sup> 3.13	<sup>3</sup> 2.08	<sup>4</sup> 1.72
Retention tax . . . . .	<sup>5</sup> 10.03	<sup>6</sup> 9.88	<sup>7</sup> 8.17
Vessel loading, storage, and other port charges . . . . .	2.50	2.50	2.50
F.o.b. calculation . . . . .	61.91	59.96	50.39

<sup>1</sup>Dollar prices converted from Buenos Aires peso prices at 4 new pesos = \$1.00. <sup>2</sup>5.3 percent on \$59 per metric ton of wheat. <sup>3</sup>4.0 percent on \$52 per metric ton of corn. <sup>4</sup>4.0 percent on \$43 per metric ton of grain sorghum. <sup>5</sup>17.0 percent on \$59 per metric ton of wheat. <sup>6</sup>19.0 percent on \$52 per metric ton of corn. <sup>7</sup>19.0 percent on \$43 per metric ton of grain sorghum.

## The National Grain Board

The principal government agency concerned with grain trade is the National Grain Board (La Junta Nacional de Granos). The Board is comprised of nine members appointed by the government. The president of the Board and one other member are appointed by the Secretary of Agriculture. The Secretaries of Commerce, Treasury, and Transportation each designate one member. The other four members are designated by organizations and selected by the Secretary of Agriculture to represent the producers' associations, farmer cooperatives, industry, and the grain trade.

Although it has been the intent of the government to allow grain trade to remain with private firms and cooperatives, the Grain Board influences trade and prices in a number of ways.

Under the support program, the Board is obligated to purchase all grain offered to it at the support prices. In practice, wheat is the only grain purchased by the Board in significant quantities; purchases have usually been large only in years of bumper domestic supplies or limited export opportunities. In recent years, Board purchases have been as low as 3 percent and as high as 63 percent of total wheat production.

The Grain Board plays a key role in the negotiation of bilateral sales agreements with agencies of foreign governments but generally transfers the contracts to the private trade and the cooperatives to execute delivery. The Board will often reserve stocks in order to insure that sufficient supplies will be available to meet these bilateral agreements, and in 1970 on a Brazilian contract agreed to make wheat available at a loss in order that the contract terms could be met. On several occasions when difficulties have arisen, the Board has been the direct seller. Also, with state trading countries such as the USSR and Mainland China, the Board is usually the direct seller. Wheat has been the only grain either included in bilateral agreements or sold directly by the Board. In unusual circumstances, as during the tight supply situations of mid-1967 and mid-1969, the Grain Board has also sold wheat directly into the domestic market. On both of these occasions the Board also had to import wheat in order to insure adequate supplies.

Through its power to issue export licenses, the National Grain Board can exert an influence on the price of Argentine grain in foreign markets. For wheat, informal exporter pools and temporary embargoes against all sales and sales to specified destinations have been established by the Board in years of relatively tight supply.

All of the export elevators and about half of domestic storage space are owned by the Grain Board. Exporters must, therefore, pay the Board for the use of these facilities and often, especially following harvests, the Board allocates space and use among the different exporters. Commercial storage not owned by the Board must be licensed by it. All grain trading enterprises must also be licensed by the Grain Board. The Board also has the power to impose special-purpose taxes on export sales and on grain "industrialized" (sold domestically).

**Grain storage in Argentina**

Type and location	1954	1964	1965	1967	1969
Official:	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>
At ports:	<i>metric tons</i>	<i>metric tons</i>	<i>metric tons</i>	<i>metric tons</i>	<i>metric tons</i>
Elevators . . . . .	894	925	999	985	1,066
Underground silos . . . . .	—	1,503	1,509	1,467	1,509
Farm-type silos . . . . .	—	—	190	195	157
Total bulk . . . . .	894	2,428	2,698	2,647	2,732
Storage in bags . . . . .	896	664	705	541	411
Total . . . . .	1,790	3,092	3,403	3,188	3,143
In countryside:					
Elevators . . . . .	122	323	337	337	337
Underground silos . . . . .	<sup>(1)</sup>	601	671	671	671
Farm-type silos . . . . .	—	—	71	78	78
Total . . . . .	<sup>(1)</sup>	924	1,079	1,086	1,086
Total official . . . . .	<sup>(2)</sup>	4,017	4,482	4,274	4,229
Private:					
Private buyers (bulk) . . . . .	<sup>(1)</sup>	<sup>(1)</sup>	} 1,156	910	} 2,315
Cooperatives (bulk) . . . . .	<sup>(1)</sup>	<sup>(1)</sup>		845	
Farm (bulk) . . . . .	<sup>2</sup> 100	<sup>(1)</sup>	<sup>2</sup> 2,000	<sup>2</sup> 2,200	2,350
Total private . . . . .	<sup>(1)</sup>	<sup>(1)</sup>	3,156	3,955	4,665
Country total . . . . .	<sup>(1)</sup>	<sup>(1)</sup>	7,638	8,229	8,894

<sup>1</sup> Figures not available.

<sup>2</sup> Estimated in *The Review of the River Plate*.

Source: National Grain Board and *The Review of the River Plate*, Apr. 22, 1968, p. 559.

**Official grain storage capacity by provinces and positions in 1967 in Argentina**

Location	Elevators	Underground silos	Farm-type silos	Bagged	Total
Southern Buenos Aires:	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>	<i>1,000</i>
At ports . . . . .	<i>metric tons</i>	<i>metric tons</i>	<i>metric tons</i>	<i>metric tons</i>	<i>metric tons</i>
Interior . . . . .	290	593	195	101	1,179
Total . . . . .	64	—	302	—	366
	354	593	497	101	1,545
Northern Buenos Aires:					
At ports . . . . .	228	86	—	151	466
Interior . . . . .	40	—	124	—	164
Total . . . . .	268	86	124	151	630
Santa Fe:					
At ports . . . . .	464	788	—	238	1,490
Interior . . . . .	85	—	129	—	214
Total . . . . .	549	788	129	238	1,704
Córdoba:					
Interior . . . . .	103	—	173	—	277
Entre Ríos:					
At ports . . . . .	3	—	—	50	53
Interior . . . . .	11	—	—	—	11
Total . . . . .	14	—	—	50	64
La Pampa:					
Interior . . . . .	33	—	21	—	54
All Argentina:					
At ports . . . . .	985	1,467	195	541	3,188
Interior . . . . .	337	—	750	—	1,086
Total . . . . .	1,322	1,467	945	541	4,274

Source: National Grain Board.

## GOVERNMENT POLICY AND PROGRAMS FOR GRAIN

### Background

The raising of beef cattle was Argentina's first profitable agricultural export enterprise on a large scale. The first herd was brought to the site of Buenos Aires by the city's permanent founder, Juan de Garay, in 1580. Exports were largely limited to hides, tallow, and grease for many years, and volume trade in meat did not start until the development of refrigerated shipping in the early 1880's.

The dominance of the large ranching pattern became firmly fixed in Argentine agriculture and was not much modified by the concurrent development of wheat growing in the closing years of the 19th century and the early 20th century. The new grain belt developed outward from Rosario on the Paraná River. Some grain was grown on smaller private holdings. But grain cultivation spread to the larger ranches mainly under tenant or sharecropping arrangements rather than subdivision and sale of land. Ranching on a large scale has remained a matter of prestige, and there has been no effective pressure to change this tenure system.

Argentine exports of cereal grains slumped during World War I owing to a shortage of ocean shipping but rapidly recovered during the 1920's and eventually overtook meats and other products in export value.

All agricultural enterprises suffered severely during the worldwide depression of the early 1930's. Movement of grain declined sharply with the outbreak of World War II when available ocean cargo space was insufficient for carrying bulky export items and shipping movement became considerably restricted. Availability of essential nonagricultural imports also declined. As a consequence, Argentina had to rely more heavily on domestic manufacture and shifted to greater emphasis on industrial development.

Policies of the Peron administration, which continued for 10 years into 1955, apparently had the effect of discouraging agriculture, as both livestock and crop production declined. Under succeeding administrations, Argentine agriculture has grown; but progress has remained limited because adverse weather has frequently curbed output and partly because measures taken to provide new incentives have been offset by national economic policies aimed at controlling inflation and stabilizing living costs. In several instances such incentive measures for agriculture as price support, expanded credit, lower import duties on certain essential farm inputs, and income tax credit for certain agricultural investments have tended to be offset by various taxes, including taxes on exports, and a high rate of inflation.

Government intervention in the grain economy has taken several forms over the years. Coincidental with the worldwide depression in the 1930's, the government established the Grain Regulatory Board (Junta Reguladora de Granos). A support price system was developed at that time; but because the prices were established at relatively low levels, there was only occasional intervention by the Board through 1940. There was no requirement for marketing through the Board. However, during World War II the Board became predominant and purchased a high proportion of all grain crops although the exporters could still acquire grain either on the domestic market or from the Regulatory Board.

During the Peron administration, virtually all grain trade went under a government monopoly—the Argentine Trade Promotion Institute (Instituto Argentino de Promoción de Intercambio), or IAPI. All private facilities, including the export elevators, were expropriated for government use in 1944, and legal title was taken in 1946. The grain monopoly started to function in late 1946 and lasted until 1959. The monopoly fixed prices at which it purchased all grains. The monopoly then resold the grain in the international market and to the domestic flour mills. Producers could sell in the domestic market at any price obtainable, but IAPI was virtually the sole exporter.

During the early stages of IAPI the government attempted to utilize the profits from IAPI export sales to assist in financing its first Five-Year Plan, which emphasized industrialization. However, producers became disillusioned with the relatively low prices they received and the higher prices IAPI extracted from foreign buyers; grain production and thus exports began to decline sharply. In 1953 the second Five-Year Plan provided greater emphasis on grain production. But despite higher purchase prices, grain production did not really begin to increase until the free market was reestablished in 1959.

The only major modification in government intervention policies since 1959 was during the period 1966-67 to 1969-70 when separate minimum trading and support prices were established for each grain. The National Grain Board, which was established in 1963, was only obligated to purchase grain at the support prices. However, for the 1970-71 crops there was a return to a single support-minimum trading price.



## Policy formulation

The general agricultural policy in Argentina has been to provide inexpensive food for the domestic population but to obtain the highest possible prices in world markets. In Argentina food items account for nearly 60 percent of consumer expenditures while agricultural exports account for 90 to 95 percent of all export earnings. Grain and grain products, specifically, account for over 12 percent of consumer expenditures and for between 30 to 40 percent of the value of all exports.

During the Peron administration the two-price-level policy was achieved by having the state trading monopoly purchase grain from farmers at one price and sell it to international buyers at a higher price. The markup was often as much as 100 percent. In more recent years the policy of maintaining a margin between the export price and the internal price has been achieved through the imposition of an export retention tax, which has been as high as 25 percent on grains.

An important factor affecting policies toward grain production and agriculture in general has been a desire to reduce the national dependency on agriculture. Government policy has tended to favor investment of capital in heavy industries, especially during the two war periods and during the Peron administration.

The land ownership pattern has also had a bearing on policy formulation, since approximately 75 percent of the farmland is in the hands of 5 percent of the farmers.

The Secretariat of Agriculture and Livestock is the principal government agency responsible for agricultural policy. The Secretariat, however, is responsible to the Ministry of Economy. Often it is the Minister of Economy who announces changes in support prices or production goals. In addition, the National Planning Council (CONADE), which is somewhat analogous to the Council of Economic Advisors in the United States and is part of the President's office, is responsible for long-range programs such as tax, credit, and educational reforms and for establishing production and export goals.

Formerly semiautonomous, the National Grain Board recently was placed directly under the jurisdiction of the Secretariat of Agriculture and Livestock. An interdepartmental committee consisting of the Under Secretaries of Foreign Commerce and of Agriculture is responsible for grain export policy.

The National Institute of Agricultural Technology, known as INTA, is the principal research and extension agency. This agency has been semiautonomous and derives its operating funds from a special tax on agricultural exports.

## Current policy

Next after curbing inflation and achieving economic stability, Argentine government policy as of 1970 favors stimulating agriculture. In recent years, officials have generally talked about stabilizing wheat production at around 8 million tons and encouraging feedgrain production. Policies toward wheat production are tempered by the outlook for little or no growth in world wheat trade and an inability to offer wheat on concessional terms to developing countries. On the other hand, despite several bumper crops, Argentina has yet to be left with unsold feedgrains, and there is a generally optimistic outlook for feedgrain production and exports.

Several recent policy developments have been aimed at stabilizing wheat production and encouraging feedgrain production.

For example, the support price for wheat was increased by only 5 percent (no increase in real terms, considering inflation) in 1968-69. The posted support price for wheat in 1968-69 was increased to 1,650 pesos per 100 kilograms from 1,500, but at the same time the Grain Board announced that the 70-peso additional payment previously included with the support price to cover commissions and brokers' fees would be discontinued. Thus, the support price was only raised from 1,570 to 1,650, or a net of 5 percent. The support price for wheat was not increased at all in 1969-70.

As previously mentioned, support purchases of corn or sorghum have been limited. However, for the 1969 harvest the minimum trading price for corn was raised 14 percent and for sorghum 8 percent; for the 1970 harvest the minimum price for corn was increased 4 percent and for sorghum 11 percent.

The changes announced in June 1970 appear further aimed at stabilizing wheat production and encouraging feedgrain production. The basic wheat support price for 1970-71 was left at the two preceding seasons' level and the maximum premium applicable for deliveries during May through September is only 7 percent over the basic level. On the other hand, the net increase in the corn price resulting from the elimination of the lower minimum trading price



and a higher new support-minimum trading price was nearly 8 percent. For grain sorghum the net increase from the 1970 minimum trading price to a higher 1971 support price was 10 percent plus another 7 percent over the 1971 basic support for deliveries in the August-December 1971 period when the deferred delivery premium will be at a maximum.

## **National Institute of Agricultural Technology**

The Instituto Nacional de Tecnología Agropecuaria or INTA is a semiautonomous agency of the Secretariat of Agriculture created by law on December 4, 1956, to integrate and expand all government-supported agricultural research and extension work in Argentina. It is funded from a tax of 1½ percent on agricultural exports. Forty-two experiment stations have now been established, of which 10 serve as regional centers. General direction is given from a central office at Buenos Aires, but the regional offices and individual stations have considerable latitude in their work programs. Prior to the establishment of INTA little agricultural extension activity took place in Argentina.

Until 1964, all local extension units were supported by INTA. Since then, at least 20 percent of the funds for local units have been required from new communities using such units, but this has not caused a noticeable slackening of interest in the establishment of these units.

Over the past 10 years, there has been an expansion of private producer-oriented groups that are organized under the Argentine Federation of Regional Societies of Agricultural Experimentation (Federación Argentina de los Consorcios Regionales de Experimentación Agrícola or CREA). The local CREA units or societies that make up this federation consist of from 10 to 12 farmers each and are patterned after a similar private producer setup in France. An individual unit often hires its own specialist and, with his assistance, attempts technological innovations. In addition, the Federation circulates a triannual bulletin that summarizes the findings of individual groups for all of the members. In 1968 there were around 80 CREA groups in the Pampa farming a total land area over 1 million hectares.

## **Taxes**

The general tax system in Argentina consists of income taxes, land taxes, gross-sales taxes, and export taxes. The sales taxes and export taxes provide most of the revenue.

Although income taxes have not been a significant source of government revenue, a law was passed in 1967 aimed at increasing the profitability of agricultural production by allowing the deduction from taxable farm income of certain production-related expenses. Deductions of up to 100 percent of the cost of herbicides, pesticides, equipment of domestic manufacture, and a variety of other production-related expenses were allowed. Annual deductions were limited to 60 percent of taxable farm income, but it was also provided that any expenses in excess of this limit could be written off over the 2 following years.

There is a moderate land tax. Formerly administered by the provinces, the land tax was taken over by the national government in 1969 for a 3-year period.

The export retention taxes are under frequent debate in Argentina. On one hand it is argued that these taxes are easy to collect, are a significant source of government revenue, prevent windfalls to exporters following a devaluation, and maintain domestic prices below the level of world prices, thereby contributing to a lower cost of living. On the other hand it is argued that these taxes are an unfair burden to those farmers who choose to produce over those who leave their land idle, deprive Argentine farmers of world price levels, tax away whatever productive efficiencies the Argentine farmers have relative to other world producers, give the psychological impression to farmers that part of their production is for the state, and are an unneeded subsidy to raisers of hogs and chickens (not much in demand for meat in Argentina) through keeping corn and sorghum prices low.

Also, it is argued that since the taxes are generally adjusted only after new-crop grain starts to encounter difficulty in world markets and since the adjustments are often accompanied by increases in the levels of domestic prices, the small farmers are unable to take advantage of these higher prices because they generally market their grain immediately after harvest.

## **Credit**

Because of the rampant rate of inflation up to 1968 and the relatively low profit margins in agriculture in comparison with industry, credit available to farmers has been in rather short supply. The Bank of the Nation and the provincial banks, especially in the provinces of Buenos Aires, Santa Fe, and Córdoba, have been the most

important sources of farm credit. During the 1955 to 1965 period, about one-fourth of the total loanable resources in Argentina went to agriculture; however, generally, these loans were for immediate cash needs and not for long-term investments. Prior to the slowdown of inflation in 1968, interest rates per annum on money borrowed from the Bank of the Nation ranged from 12 to 15 percent, and a long-term loan was considered to be 3 years. Since 1968, interest rates have started to decline, and the cooperatives have begun to assume a greater role in the extension of credit.

There were two projects underway in 1968 with the Inter-American Development Bank and the World Bank assisting the Bank of the Nation to increase the amounts of credit available to farmers—especially for long-term needs. The program assisted by the Inter-American Development Bank is intended to lend funds for natural pasture improvement on about 5 million hectares. The World Bank project is aimed at providing a package program to farmers in southern Buenos Aires province to upgrade cattle production and increase the carrying capacity of the land. Loans are made for up to 9 years at 13-percent interest; technical supervision is also being made available to farmers under this project.

### **Rental contracts**

The sale and leasing of land in Argentina from 1942 until recently was complicated by the freezing of rental contracts. In April 1967 it was decreed that by the end of 1968 all contracts having been previously extended would no longer be valid. By that time, a lessee or sharecropper was either to have purchased the farm he operated, to have negotiated a new contract more in keeping with current values, or to have left the land, in which case grants of state-owned land would be available to him.

Until the rent freeze was ended, landlords tended to avoid improving their properties for more efficient operations, and lessees hesitated to make capital investments in the face of possible eviction.

## **OUTLOOK FOR GRAIN PRODUCTION AND EXPORTS**

### **Potential**

Argentine writer and President (1868-74) Domingo Sarmiento once said of his country, "This land is waiting for the order to produce." In a way, this potential to produce grain is still latent in Argentina. Increased grain production for export could be realized by increasing the output per land unit, by devoting more land to grain production, or by a combination of both.

**Yield.**—Higher yields are a possible avenue for increased grain production. Yields, particularly of corn and sorghum, are low relative to those of other exporting countries and have been rather slow to increase. However, the technology for higher yields is currently available and is already being applied by the more progressive farmers. A recent survey showed the best producers obtaining 4.5 tons of wheat per hectare (67 bushels per acre) compared with the recent national average of about 1.5 tons (22 bushels). Corn yields of the best producers were reported at 8.0 tons per hectare (128 bushels per acre) against a national average of about 2.0 tons (31 bushels). Sorghum producers were not included in the survey, but it was reported that on the experiment stations yields of 4 to 5 tons (64 to 80 bushels) have been reached versus the recent national average of around 1.9 tons (29 bushels). The gap between the experiment stations' results for corn and the national average is even more revealing, with yields of up to 12 tons per hectare (191 bushels per acre) being reported from experiment stations.

**Grain area.**—The land area of the highly productive Pampa region is currently about fully committed to agricultural production, but the productivity of the 75 percent of the land devoted to cattle production is extremely low. It has been estimated that 1 hectare of land is used to support 1 animal unit. An increase in the carrying capacity of the pasture land could release land for grain production, the production of other crops, or increased cattle production. For example, if the carrying capacity was increased to 1½ animal units per hectare, about 15 million hectares of land could be released for other uses. Currently about 40 million to 45 million hectares of land are devoted to cattle production in the Pampa region; only around 10 million hectares of grain are being harvested. Studies have indicated that a good portion of the natural pastures of the Pampa could be improved and that 1 hectare of improved pasture is the equivalent of about 2½ hectares of natural pastures.

Another potential for increasing land area in grain is found in the northern regions where there is still unused farmland, where land in cotton and sugarcane is already going over to grain production, and where the current carrying capacity of the pastures is even lower than in the Pampa region. The potential of this area is already being realized to some extent. For example, in the province of Chaco between 1962-63 and 1967-68 wheat production went from 1,600 tons to 70,000 tons and sorghum production soared from 24,000 tons to 316,000 tons. Varieties especially adapted to the climate of these northern regions are now being developed.

## Prospects

Argentine grain production showed sustained increases throughout the 1960's. During the 10 years ending with 1969, the annual area planted to both corn and sorghum increased in all but 1 year and the area under wheat increased in 6 years. In 1968 the total area under grain topped the previous high of 1937, and in 1969 the land area devoted to grain production was nearly 27 percent larger than in 1959 and 17 percent larger than in 1964. These gains have been registered without any direct production, income, or export subsidies; and in fact, returns from export sales have generally been limited by the imposition of export taxes.

The recent situation in Argentina appears to favor continued increases in grain production, particularly of corn and grain sorghum. The most significant indications leading to this conclusion are as follows. First, recent world price levels as reflected in Argentina have tended to favor wheat production over cattle production but corn and sorghum production over wheat production. The domestic cost-price relationship does not appear to be a factor limiting production currently, but prior to the slowdown in the rate of inflation around 1968, it probably limited expansion. Second, since 1968 the domestic economic climate has been more conducive to expansion than at any time in recent history. Domestic prices have been relatively stable, interest rates have been declining, and credit has become easier. Third, government price policy actions appear aimed at increasing grain production, particularly of corn and sorghum. Fourth, sorghum has proved to be a very popular grain with Argentine farmers, ideally suited to the semiarid areas and a good dual-purpose crop.

Any forecasts of future levels of grain production in Argentina must be tenuous since developments in the world grain economy and government policy will be the main determinants. If it is assumed that world grain and cattle prices, as reflected in Argentina, hold in about the same relationships as in recent years, added land will probably continue to be placed under corn and sorghum, yields should show some increased gains, and the goal of stabilized wheat production at around 8 million tons annually should be attainable. Under these conditions, it would seem possible for corn production to reach 12 million to 13 million tons a year and sorghum production 5 million to 6 million tons annually by 1975.

Virtually all of any increased production of wheat, corn, and sorghum would go to the export market since domestic requirements of wheat are already relatively stable and increased domestic utilization of corn and sorghum would at best be moderate under current price relationships. Given these circumstances, corn exports could increase to 8 million tons a year by 1975—about double the 1967-68 to 1969-70 annual average of 3.9 million. Sorghum exports could increase to around 3.5 million tons a year in contrast to the 1967-68 to 1969-70 annual average of 864,000 tons. If wheat production is stabilized at around 8 million tons a year by 1975, the export availability could be around 3.5 million tons annually compared to the 1966-67 to 1968-69 yearly average of 2.3 million tons.

## APPENDIX OF TABLES

Area in Argentina devoted to crops

Crop year	Grains	Oilseeds	Industrial crops	Fruits and vegetables	Forage	Total
	<i>1,000 hectares</i>	<i>1,000 hectares</i>	<i>1,000 hectares</i>	<i>1,000 hectares</i>	<i>1,000 hectares</i>	<i>1,000 hectares</i>
1935-36 .....	16,144	2,882	699	605	5,555	25,885
1936-37 .....	17,560	3,833	735	441	5,381	27,950
1937-38 .....	18,158	3,305	783	459	5,475	28,180
1938-39 .....	17,330	3,122	778	504	5,307	27,041
1939-40 .....	17,816	3,670	767	611	5,498	28,362
1940-41 .....	17,144	3,524	745	685	5,741	27,844
1941-42 .....	15,756	3,554	743	722	6,110	26,885
1942-43 .....	15,431	3,272	789	708	6,159	26,359
1943-44 .....	16,065	4,017	902	723	5,872	27,579
1944-45 .....	15,803	3,664	893	749	6,596	26,705
1945-46 .....	14,228	3,685	894	769	6,635	26,211
1946-47 .....	15,562	3,660	902	768	6,726	27,618
1947-48 .....	13,351	3,228	911	805	6,685	24,980
1948-49 .....	12,922	3,222	992	836	7,102	25,074
1949-50 .....	11,985	2,669	961	853	7,192	23,660
1950-51 .....	13,749	2,836	1,010	893	7,570	26,055
1951-52 .....	12,022	2,406	1,093	868	7,636	24,025
1952-53 .....	15,281	2,022	1,066	959	7,878	27,206
1953-54 .....	14,926	1,493	1,089	990	8,476	26,974
1954-55 .....	14,220	1,455	1,094	985	8,644	26,398
1955-56 .....	13,832	2,276	1,139	985	8,424	26,656
1956-57 .....	15,295	2,713	1,186	1,028	8,573	28,795
1957-58 .....	15,227	3,343	1,284	1,026	8,689	29,569
1958-59 .....	15,734	2,825	1,246	1,072	8,322	29,199
1959-60 .....	14,827	2,678	1,157	1,089	8,390	28,141
1960-61 .....	14,288	2,452	1,219	1,107	8,295	27,361
1961-62 .....	14,729	2,946	1,150	1,036	8,403	28,264
1962-63 .....	14,416	2,765	1,144	1,060	7,749	27,134
1963-64 .....	16,264	2,644	1,197	1,100	7,759	28,964
1964-65 .....	15,894	2,733	1,221	1,138	7,354	28,340
1965-66 .....	15,557	2,826	1,043	1,110	7,238	27,774
1966-67 .....	16,622	2,622	842	1,120	7,090	28,296
1967-68 <sup>1</sup> .....	17,699	2,200	752	1,176	7,110	28,937
1968-69 <sup>1</sup> .....	18,676	2,486	873	1,190	7,406	30,631
1969-70 <sup>1</sup> .....	18,497	--	--	--	--	--

<sup>1</sup> Preliminary.

Source: *Revista de la Bolsa de Cereales, Numero Estadístico*, 1969, and U.S. Agricultural Attaché reports.



# Wheat supply and distribution in Argentina

Marketing year	Acreage		Yield	Pro-duction	Carry-in Dec. 1 <sup>1</sup>	Imports	Total supply	Apparent consumption		Total	Exports	Carryout Nov. 30 <sup>1</sup>
	Planted	Harvested						Human <sup>2</sup>	Other <sup>3</sup>			
Average 1934-35	1,000 hectares	1,000 hectares	Kg. per hectare	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons
1938-39.....	7,632	6,783	978	6,634	--	--	--	--	--	--	3,173	--
1950-51.....	6,554	5,241	1,106	5,796	609	--	6,405	2,720	398	3,118	2,585	702
1951-52.....	4,791	2,740	766	2,100	702	208	3,010	2,455	219	2,674	118	218
1952-53.....	6,066	5,579	1,368	7,634	218	--	7,852	2,855	1,239	4,094	2,248	1,510
1953-54.....	6,354	4,996	1,241	6,200	1,510	--	7,710	2,775	359	3,134	2,967	1,609
1954-55.....	5,937	5,462	1,408	7,690	1,609	--	9,299	2,897	634	3,531	3,560	2,208
1955-56.....	5,210	4,062	1,293	5,250	2,208	--	7,458	3,048	556	3,604	2,628	1,226
1956-57.....	5,947	5,392	1,317	7,100	1,226	--	8,051	3,051	1,020	4,071	2,701	1,554
1957-58.....	5,311	4,394	1,322	5,810	1,554	--	7,364	3,169	800	3,939	1,974	1,421
1958-59.....	5,708	5,243	1,282	6,720	1,421	--	8,141	3,347	761	4,108	2,628	1,405
1959-60.....	4,792	4,378	1,333	5,837	1,405	--	7,242	3,131	487	3,618	2,432	1,192
1960-61.....	4,275	3,622	1,160	4,200	1,192	--	5,392	3,084	461	3,545	1,083	764
1961-62.....	4,952	4,421	1,295	5,725	762	--	6,489	3,082	434	3,516	2,730	243
1962-63.....	4,847	3,745	1,522	5,700	243	--	5,943	3,066	517	3,583	1,856	504
1963-64.....	6,276	5,676	1,575	8,940	504	--	9,444	3,137	611	3,748	3,483	2,213
1964-65.....	6,497	6,135	1,835	11,260	2,213	--	13,473	3,143	589	3,730	6,403	3,340
1965-66.....	5,724	4,601	1,321	6,079	3,340	--	9,419	3,059	646	3,705	5,539	175
1966-67.....	6,291	5,214	1,198	6,247	175	133	6,555	3,184	924	4,108	2,202	245
1967-68.....	6,613	5,812	1,260	7,320	245	35	7,600	3,235	1,095	4,330	2,262	1,008
1968-69 <sup>4</sup> .....	6,680	5,837	983	5,740	1,008	390	7,138	3,275	832	4,107	2,409	557
1969-70 <sup>4</sup> .....	6,239	5,191	1,352	7,020	557	--	7,577	--	--	--	--	--

<sup>1</sup> Carryover in licensed facilities as reported by the National Grain Board; farm stocks are not included. <sup>2</sup> National Grain Board, *Boletín Mensual* No. 52, October 1967, through 1966-67; estimates for later years. <sup>3</sup> Residual, includes seed use. <sup>4</sup> Preliminary.

Source: National Grain Board, *Boletín Mensual* No. 75, September 1969 for years through 1967-68; for later years, U.S. Agricultural Attaché and other Grain Board reports.

# Corn supply and distribution in Argentina

Marketing year	Acreage		Yield	Production	Carry-in April 1 <sup>1</sup>	Total supply	Apparent consumption <sup>2</sup>	Exports	Carryout March 30 <sup>1</sup>
	Planted	Harvested							
Average 1934-35	1,000 hectares	1,000 hectares	Kg. per hectare	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons
1938-39.....	6,423	4,364	1,808	7,892	--	--	--	6,398	--
1951-52.....	2,439	1,714	1,558	2,670	91	2,761	1,973	480	308
1952-53.....	2,532	1,431	1,425	2,040	308	2,348	1,591	633	124
1953-54.....	3,354	2,856	1,507	3,550	124	3,674	2,434	1,150	90
1954-55.....	3,268	2,414	1,843	4,450	90	4,540	2,426	2,050	64
1955-56.....	3,002	1,863	1,367	2,546	64	2,610	2,193	268	149
1956-57.....	2,888	2,240	1,727	3,870	149	4,019	2,701	1,206	112
1957-58.....	2,740	1,957	1,378	2,698	112	2,810	1,859	793	158
1958-59.....	2,860	2,448	1,963	4,806	158	4,964	2,767	2,093	104
1959-60.....	2,894	2,361	2,089	4,932	104	5,036	2,033	2,728	275
1960-61.....	3,062	2,415	1,701	4,108	275	4,383	2,291	2,068	24
1961-62.....	3,222	2,744	1,767	4,850	24	4,874	3,021	1,838	15
1962-63.....	3,300	2,757	1,894	5,220	15	5,235	2,325	2,889	21
1963-64.....	3,420	2,645	1,648	4,360	21	4,381	1,726	2,590	65
1964-65.....	3,778	2,971	1,801	5,350	65	5,415	1,949	3,442	24
1965-66.....	3,693	3,062	1,678	5,140	24	5,164	2,427	2,687	25
1966-67.....	3,921	3,275	2,150	7,040	25	7,065	3,029	4,022	14
1967-68.....	4,156	3,450	2,466	8,000	14	8,014	3,853	4,128	33
1968-69.....	4,473	3,378	1,942	6,560	33	6,593	3,151	3,442	12
1969-70 <sup>4</sup> .....	4,595	3,556	1,929	6,860	12	6,872	3,120	3,740	12
1970-71 <sup>4</sup> .....	4,666	4,090	2,308	9,440	12	9,452	--	--	--

<sup>1</sup> Carryover in licensed facilities as reported by the National Grain Board; farm stocks are not included. <sup>2</sup> Residual. <sup>3</sup> U.S. Agricultural Attaché estimate, official estimate was 8.51 million tons. <sup>4</sup> Preliminary.  
Note: Crop years have been shifted up one year to marketing years; ie., 1967-68 marketing year is the Argentine 1966-67 crop year.  
Source: National Grain Board, *Boletín Mensual* No. 75, September 1969 for years through 1968-69; for later years, U.S. Agricultural Attaché and other Grain Board reports.

Grain sorghum supply and distribution in Argentina

Marketing year	Acreage		Yield	Production	Carry-in April 1 <sup>1</sup>	Total supply	Apparent consumption <sup>2</sup>	Exports	Carryout March 30 <sup>1</sup>
	Planted	Harvested							
	<i>1,000 hectares</i>	<i>1,000 hectares</i>	<i>Kg. per hectare</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
1951-52 .....	37	14	1,088	15	--	--	15	--	--
1952-53 .....	54	19	751	14	--	--	7	7	--
1953-54 .....	38	16	950	15	--	--	15	--	--
1954-55 .....	59	24	1,725	41	--	--	41	--	--
1955-56 .....	81	32	1,797	58	--	--	58	--	--
1956-57 .....	139	61	1,360	83	--	--	75	8	--
1957-58 .....	179	70	1,670	117	--	--	97	20	--
1958-59 .....	418	248	2,457	609	--	--	436	173	--
1959-60 .....	682	418	1,739	727	--	--	604	123	--
1960-61 .....	730	364	1,673	609	22	631	555	69	7
1961-62 .....	937	553	2,265	1,252	7	1,259	910	335	14
1962-63 .....	1,075	646	2,159	1,394	14	1,408	1,039	363	6
1963-64 .....	1,072	574	1,660	952	6	958	363	568	27
1964-65 .....	1,218	724	1,751	1,267	27	1,294	629	656	9
1965-66 .....	1,246	588	1,458	857	9	866	726	127	13
1966-67 .....	1,346	836	2,549	2,130	13	2,143	1,045	1,085	13
1967-68 .....	1,454	764	1,805	1,380	13	1,393	962	422	9
1968-69 .....	1,841	1,083	1,752	1,897	9	1,906	1,086	811	9
1969-70 <sup>3</sup> .....	2,151	1,302	1,908	2,484	9	2,493	1,130	1,354	9
1970-71 <sup>3</sup> .....	2,569	1,908	2,023	3,860	9	3,869	--	--	--

<sup>1</sup> Carryover in licensed facilities as reported by the National Grain Board; farm stocks are not included.

<sup>2</sup> Residual.

<sup>3</sup> Preliminary.

Note: Crop years have been shifted up one year to marketing years; ie., 1967-68 marketing year is the Argentine 1966-67 crop year.

Source: National Grain Board, *Boletín Mensual No. 75*, September 1969 for period from 1960-61 through 1968-69; for earlier years, calendar year exports and official crop estimates; for later years, U.S. Agricultural Attaché and other Grain Board reports.

Barley supply and distribution in Argentina

Marketing year	Acreage		Yield	Production	Carry-in Dec. 1 <sup>1</sup>	Total supply	Apparent consump- tion <sup>2</sup>	Exports	Carryout Nov. 30 <sup>1</sup>
	Planted	Harvested							
	<i>1,000 hectares</i>	<i>1,000 hectares</i>	<i>Kg. per hectare</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
Average 1934-35 .....									
1938-39 .....	761	523	962	503	--	--	--	275	--
1950-51 .....	898	580	1,316	763	35	798	486	142	170
1951-52 .....	872	351	958	336	170	506	349	123	34
1952-53 .....	1,108	840	1,398	1,175	34	1,209	469	477	263
1953-54 .....	1,085	653	1,368	894	263	1,157	357	731	69
1954-55 .....	1,090	786	1,414	1,112	69	1,181	464	421	296
1955-56 .....	1,251	828	1,448	951	296	1,247	528	628	91
1956-57 .....	1,394	1,012	1,348	1,364	91	1,455	786	584	85
1957-58 .....	1,392	833	1,213	1,010	85	1,095	680	383	32
1958-59 .....	1,366	897	1,171	1,050	32	1,082	716	282	84
1959-60 .....	1,315	907	1,231	1,116	84	1,200	763	310	127
1960-61 .....	1,211	719	1,075	773	127	900	695	116	89
1961-62 .....	1,214	742	1,079	800	89	889	685	195	9
1962-63 .....	1,118	361	956	345	9	354	270	45	39
1963-64 .....	1,073	695	1,467	1,020	39	1,059	488	515	56
1964-65 .....	901	553	1,495	826	56	882	530	323	29
1965-66 .....	909	384	1,053	404	29	433	313	116	4
1966-67 .....	919	411	1,066	438	4	442	373	55	14
1967-68 .....	882	496	1,185	588	14	602	386	172	44
1968-69 <sup>3</sup> .....	1,011	539	1,032	556	70	600	370	208	22
1969-70 <sup>3</sup> .....	944	--	--	570	22	592	--	--	--

<sup>1</sup> Carryover in licensed facilities as reported by the National Grain Board; farm stocks are not included.

<sup>2</sup> Residual.

<sup>3</sup> Preliminary.

Source: National Grain Board, *Boletín Mensual No. 75*, September 1969 for years through 1967-68; for later years, U.S. Agricultural Attaché and other Grain Board reports.

### Oats supply and distribution in Argentina

Marketing year	Acreage		Yield	Production	Carry-in Dec. 1 <sup>1</sup>	Total supply	Apparent consump- tion <sup>2</sup>	Exports	Carryout Nov. 30 <sup>1</sup>
	Planted	Harvested							
Average 1934-35	<i>1,000 hectares</i>	<i>1,000 hectares</i>	<i>Kg. per hectare</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
1938-39.....	1,450	794	942	748	--	--	--	337	--
1950-51.....	1,311	631	1,161	733	86	819	560	109	150
1951-52.....	1,189	418	1,048	438	150	588	486	67	35
1952-53.....	1,702	963	1,318	1,269	35	1,324	694	174	436
1953-54.....	1,500	729	1,360	991	436	1,427	681	701	45
1954-55.....	1,376	695	1,281	890	45	935	713	117	105
1955-56.....	1,450	654	1,105	723	105	828	442	249	137
1956-57.....	1,888	956	1,192	1,140	137	1,277	650	379	248
1957-58.....	1,919	876	1,136	995	248	1,243	637	575	31
1958-59.....	1,796	796	1,068	850	31	881	741	89	51
1959-60.....	1,627	798	1,232	983	51	1,034	550	336	148
1960-61.....	1,589	768	1,098	843	148	991	487	234	270
1961-62.....	1,409	597	1,173	700	270	970	581	364	25
1962-63.....	1,141	412	1,183	487	25	512	337	79	96
1963-64.....	1,382	693	1,307	906	96	1,002	440	438	124
1964-65.....	1,134	570	1,413	805	124	929	486	397	46
1965-66.....	1,117	421	1,141	480	46	526	396	119	11
1966-67.....	1,143	412	1,309	540	11	551	365	157	29
1967-68.....	1,193	516	1,338	690	29	719	337	346	36
1968-69 <sup>3</sup> .....	1,299	443	1,106	490	36	526	345	156	25
1969-70 <sup>3</sup> .....	1,123	--	--	425	25	450	--	--	--

<sup>1</sup> Carryover in licensed facilities as reported by the National Grain Board; farm stocks are not included.  
<sup>3</sup> Preliminary.

<sup>2</sup> Residual.

Source: National Grain Board, *Boletín Mensual No. 75*, September 1969 for years through 1967-68; for later years, U.S. Agricultural Attaché and other Grain Board reports.

### Rye supply and distribution in Argentina

Marketing year	Acreage		Yield	Production	Carry-in Dec. 1 <sup>1</sup>	Total supply	Apparent consump- tion <sup>2</sup>	Exports	Carryout Nov. 30 <sup>1</sup>
	Planted	Harvested							
Average 1934-35	<i>1,000 hectares</i>	<i>1,000 hectares</i>	<i>Kg. per hectare</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
1938-39.....	1,003	435	583	253	--	--	--	--	--
1950-51.....	2,191	985	641	631	34	665	273	186	206
1951-52.....	1,997	152	535	81	206	287	151	134	2
1952-53.....	2,483	1,414	944	1,334	2	1,336	363	245	728
1953-54.....	2,443	836	726	607	728	1,335	343	895	97
1954-55.....	2,493	1,110	761	844	97	941	463	346	132
1955-56.....	2,580	890	735	654	132	786	516	129	141
1956-57.....	2,807	1,220	722	880	141	1,021	557	342	122
1957-58.....	2,862	893	705	630	122	752	532	198	22
1958-59.....	2,835	1,064	768	817	22	839	746	69	24
1959-60.....	2,895	1,317	805	1,060	24	1,084	877	135	72
1960-61.....	2,660	733	689	505	72	577	524	41	12
1961-62.....	2,646	695	734	510	12	522	506	14	2
1962-63.....	2,469	287	569	163	2	165	155	4	6
1963-64.....	2,163	655	821	538	6	544	381	100	63
1964-65.....	2,131	773	842	652	63	715	576	102	37
1965-66.....	2,136	331	740	245	37	282	262	12	8
1966-67.....	2,285	420	605	270	8	278	273	--	5
1967-68.....	2,285	565	624	352	5	357	323	23	11
1968-69 <sup>3</sup> .....	2,500	604	596	360	12	371	356	13	2
1969-70 <sup>3</sup> .....	2,489	--	--	377	2	379	--	--	--

<sup>1</sup> Carryover in licensed facilities as reported by the National Grain Board; farm stocks are not included.  
<sup>3</sup> Preliminary.

<sup>2</sup> Residual.

Source: National Grain Board, *Boletín Mensual No. 75*, September 1969 for years through 1967-68; for later years, U.S. Agricultural Attaché and other Grain Board reports.

## Wheat exports from Argentina by destination

Country of destination	1951	1952	1953	1954	1955	1956	1957	1958	1959
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
North and Central America	--	--	--	--	--	--	--	--	--
South America:									
Bolivia .....	--	--	10.0	--	--	--	--	3.0	16.5
Brazil .....	897.8	28.5	1,168.3	682.5	1,266.9	632.3	829.2	1,017.5	1,231.1
Chile .....	33.0	--	88.5	251.3	148.2	111.5	186.7	17.4	50.0
Colombia .....	--	--	--	--	--	--	--	--	--
Ecuador .....	--	--	--	--	--	--	--	--	--
Paraguay .....	54.1	17.3	44.0	50.5	42.3	22.2	41.4	59.6	66.9
Peru .....	75.0	15.8	98.5	177.3	148.6	132.9	142.5	94.7	66.0
Uruguay .....	--	--	--	--	--	--	--	--	10.9
Venezuela .....	--	--	--	--	--	--	--	--	--
Total .....	1,059.9	61.6	1,409.3	1,161.6	1,606.0	898.9	1,199.8	1,192.2	1,441.4
Western Europe:									
EC:									
Belgium/Luxembourg	47.2	--	41.6	166.7	120.7	69.6	108.9	39.2	45.4
France .....	42.8	--	--	2.6	1.3	147.8	140.8	9.6	63.5
Germany, West .....	122.7	--	52.7	518.3	262.5	348.8	356.0	332.2	248.0
Italy .....	414.6	--	312.9	108.2	560.4	382.6	145.0	33.2	35.5
Netherlands .....	43.0	--	60.9	137.3	218.8	180.8	169.2	112.5	128.4
Total .....	670.3	--	468.1	933.1	1,163.7	1,129.6	919.9	526.7	520.8
Other W. Europe:									
Austria .....	--	--	1.5	28.5	63.5	35.2	12.1	10.7	--
Cyprus .....	--	--	--	--	--	--	--	--	--
Denmark .....	--	--	6.0	80.3	45.5	39.2	49.5	--	15.7
Finland .....	--	--	--	16.0	98.1	13.2	4.4	9.9	--
Malta .....	--	--	10.1	5.1	--	--	--	--	--
Norway .....	--	--	--	--	11.4	21.6	22.6	11.0	2.4
Portugal .....	--	--	--	--	--	--	--	--	--
Spain .....	--	--	--	--	--	--	4.8	--	2.7
Sweden .....	30.0	--	--	--	8.4	--	0.3	1.4	--
Switzerland .....	52.6	--	48.3	51.4	31.5	7.3	43.5	0.5	1.3
United Kingdom .....	48.0	--	229.5	260.5	230.4	294.9	373.3	358.5	307.9
Total .....	130.6	--	295.4	441.8	488.8	411.4	510.5	392.0	330.0
Eastern Europe and USSR:									
Bulgaria .....	--	--	--	--	--	--	--	--	--
Czechoslovakia .....	--	--	--	17.1	29.8	35.0	--	--	--
Germany, East .....	--	--	--	--	--	4.1	--	--	--
Hungary .....	--	--	--	17.4	--	--	--	--	--
Poland .....	--	--	--	61.2	222.6	.4	--	--	--
USSR .....	--	--	--	--	--	--	--	--	--
Yugoslavia .....	--	--	--	--	--	--	1.5	--	1.0
Total .....	--	--	--	95.7	252.4	39.5	1.5	--	1.0
Asia:									
China, Mainland .....	--	--	--	11.5	--	--	--	--	--
India .....	490.7	6.0	243.3	9.1	--	--	--	--	--
Iran .....	--	--	--	--	--	--	--	--	--
Japan .....	--	--	79.0	227.6	71.2	41.8	--	--	--
Korea, North .....	--	--	--	--	--	--	--	--	--
Lebanon .....	--	--	--	--	1.7	--	--	--	26.9
Taiwan .....	--	--	--	--	--	--	--	--	--
Others .....	--	--	--	--	--	--	--	--	--
Total .....	490.7	6.0	322.3	248.2	72.9	41.8	--	--	26.9
Africa:									
Algeria .....	--	--	--	--	--	--	--	--	--
Angola .....	--	--	--	--	--	--	--	--	--
Mozambique .....	--	--	--	--	--	--	--	--	--
So. Africa, Rep. of .....	--	--	--	--	--	--	--	--	--
Others .....	99.3	--	17.5	17.4	--	21.6	52.2	20.4	40.2
Total .....	99.3	--	17.5	17.4	--	21.6	52.2	20.4	40.2
World total .....	2,450.8	67.6	2,512.6	2,897.8	3,583.8	2,542.8	2,683.9	2,131.3	2,360.3



## Wheat exports from Argentina by destination—Continued

Country of destination	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
North and Central America . . .	--	--	--	--	--	4.6	1.6	--	--	8.0
South America:										
Bolivia . . . . .	0.5	10.3	12.1	4.0	--	22.8	4.0	10.8	32.3	28.6
Brazil . . . . .	1,076.8	144.0	674.3	562.2	870.1	1,289.7	1,039.9	778.4	1,034.6	991.7
Chile . . . . .	125.1	--	--	--	--	88.6	3.1	56.7	129.5	145.8
Colombia . . . . .	--	--	--	--	21.8	22.2	--	55.7	28.6	--
Ecuador . . . . .	--	--	--	--	.1	--	--	--	--	--
Paraguay . . . . .	79.4	60.7	8.0	15.1	34.5	14.6	33.5	64.9	43.2	62.8
Peru . . . . .	208.1	133.0	266.3	270.3	301.6	368.4	302.8	238.1	359.8	272.6
Uruguay . . . . .	--	--	--	--	21.5	--	--	.5	14.2	--
Venezuela . . . . .	5.0	7.3	30.7	10.2	22.7	15.3	--	--	--	--
Total . . . . .	1,494.9	355.3	991.4	861.8	1,272.3	1,821.6	1,383.3	1,205.1	1,642.2	1,501.5
Western Europe:										
FC:										
Belgium/Luxembourg . . . .	38.6	22.3	56.2	58.0	59.4	74.5	17.3	17.8	24.2	28.4
France . . . . .	64.8	--	134.5	104.7	164.6	200.2	20.3	74.5	36.3	16.1
Germany, West . . . . .	232.3	119.0	532.9	64.0	257.7	203.5	43.2	21.7	1.9	--
Italy . . . . .	95.1	134.0	91.5	250.4	126.6	450.8	335.0	283.0	449.8	358.0
Netherlands . . . . .	112.4	69.5	264.1	124.6	271.2	391.8	94.1	174.0	36.4	75.9
Total . . . . .	543.2	344.8	1,079.2	601.7	879.5	1,320.8	509.9	571.0	548.6	478.4
Other W. Europe:										
Austria . . . . .	25.2	--	--	--	--	--	--	--	--	--
Cyprus . . . . .	--	--	--	--	--	20.2	10.4	--	12.8	--
Denmark . . . . .	1.6	--	--	--	--	--	--	--	.4	--
Finland . . . . .	--	.5	4.0	--	--	--	--	--	--	--
Malta . . . . .	--	--	--	--	--	--	--	--	--	--
Norway . . . . .	15.0	12.1	32.0	12.1	16.1	92.3	32.6	13.5	1.0	13.2
Portugal . . . . .	20.0	28.1	--	22.4	--	39.3	7.0	33.9	10.2	--
Spain . . . . .	--	75.4	--	--	12.1	105.1	--	--	--	--
Sweden . . . . .	.5	--	--	1.5	1.0	--	--	--	.8	--
Switzerland . . . . .	9.3	1.1	12.0	10.8	4.2	9.6	6.5	10.2	.7	9.7
United Kingdom . . . . .	280.0	239.5	443.3	147.5	191.9	548.9	177.9	183.6	50.2	127.5
Total . . . . .	351.6	356.7	491.3	194.3	225.3	815.4	234.4	241.2	76.1	150.4
Eastern Europe and USSR:										
Bulgaria . . . . .	--	--	10.4	--	--	--	--	--	--	--
Czechoslovakia . . . . .	--	--	--	28.0	16.8	--	5.0	--	--	--
Germany, East . . . . .	--	--	--	--	75.2	--	--	--	--	--
Hungary . . . . .	--	--	--	--	--	--	--	13.1	.6	--
Poland . . . . .	--	--	--	--	11.3	9.5	92.6	--	--	--
USSR . . . . .	--	--	--	--	9.7	1,020.8	1,225.3	--	--	--
Yugoslavia . . . . .	--	1.3	--	--	--	--	--	--	--	--
Total . . . . .	--	1.3	10.4	28.0	113.0	1,030.3	1,322.9	13.1	.6	--
Asia:										
China, Mainland . . . . .	--	--	186.2	28.2	1,171.3	1,379.5	1,543.3	--	--	--
India . . . . .	--	--	--	--	--	--	--	5.0	41.1	77.7
Iran . . . . .	--	--	--	--	--	38.0	23.2	--	--	--
Japan . . . . .	--	.7	--	--	--	2.2	--	--	4.1	14.3
Korea, North . . . . .	--	--	--	--	--	--	20.1	--	--	--
Lebanon . . . . .	56.6	--	--	--	--	7.0	--	--	--	--
Taiwan . . . . .	--	--	--	--	--	27.9	4.5	--	10.1	--
Others . . . . .	--	--	--	--	--	11.8	--	--	5.0	12.3
Total . . . . .	56.6	.7	186.2	28.2	1,171.3	1,473.5	1,591.1	5.0	60.3	104.3
Africa:										
Algeria . . . . .	--	10.4	19.9	41.3	--	--	--	30.9	9.6	49.5
Angola . . . . .	--	--	--	--	--	17.3	8.9	12.5	--	--
Mozambique . . . . .	--	--	--	--	12.6	48.6	--	--	11.5	--
So. Africa, Rep. of . . . . .	--	--	--	--	12.0	--	23.4	--	--	--
Others . . . . .	--	9.9	15.7	--	--	10.5	3.6	--	--	--
Total . . . . .	--	20.3	35.6	41.3	24.6	76.4	35.9	43.4	21.1	49.5
World total . . . . .	2,446.3	1,079.1	2,794.1	1,755.3	3,686.0	6,542.6	5,079.1	2,078.8	2,348.9	2,292.1

Corn exports from Argentina by destination

Country of destination	1951	1952	1953	1954	1955	1956	1957	1958	1959
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
North and Central America	--	--	0.1	--	--	--	--	10.7	5.3
South America:									
Brazil . . . . .	--	--	49.6	--	--	--	--	--	--
Chile . . . . .	--	6.7	--	--	--	--	0.1	--	--
Guyana . . . . .	--	--	--	--	--	--	--	--	--
Peru . . . . .	--	10.0	--	1.8	--	--	4.0	5.0	2.2
Uruguay . . . . .	--	--	--	--	--	--	.8	--	3.1
Venezuela . . . . .	--	--	--	--	--	--	--	--	--
Total . . . . .	--	16.7	49.6	1.8	--	--	4.9	5.0	5.3
Western Europe:									
EC:									
Belgium/Luxembourg .	25.4	75.3	110.2	202.4	79.8	191.3	161.9	233.6	281.3
France . . . . .	198.3	312.3	87.5	190.2	53.6	177.1	10.7	2.0	9.5
Germany, West . . . . .	16.1	14.6	80.6	403.6	34.1	143.9	88.6	136.2	175.8
Italy . . . . .	--	0.6	104.6	101.6	86.4	132.4	258.6	424.6	1,004.6
Netherlands . . . . .	11.5	11.5	130.8	308.9	24.5	156.9	211.0	429.1	518.6
Total . . . . .	251.2	414.3	513.8	1,206.8	278.4	801.6	730.8	1,225.5	1,988.8
Other Western Europe:									
Austria . . . . .	2.0	19.8	24.4	43.6	2.0	5.5	2.1	9.6	12.2
Denmark . . . . .	--	--	3.4	43.3	--	3.6	4.3	8.9	7.6
Finland . . . . .	3.3	20.0	--	15.1	16.0	6.2	4.0	--	--
Malta . . . . .	--	--	--	--	--	--	--	--	.2
Norway . . . . .	--	2.0	3.0	20.8	--	--	--	2.0	4.9
Portugal . . . . .	--	--	--	--	--	--	--	--	--
Spain . . . . .	--	--	5.0	--	--	--	--	--	3.1
Sweden . . . . .	7.8	91.6	44.7	34.4	9.8	--	3.1	3.7	6.3
Switzerland . . . . .	29.7	10.8	27.2	43.2	17.2	19.1	10.9	16.3	19.0
United Kingdom . . . . .	4.1	61.0	407.0	442.4	41.5	162.1	7.6	188.3	337.5
Total . . . . .	46.9	205.2	514.7	642.8	86.5	196.5	29.0	228.8	390.8
Eastern Europe and USSR:									
Czechoslovakia . . . . .	--	--	--	100.0	8.6	--	--	1.0	1.9
Hungary . . . . .	--	--	--	31.6	--	--	--	--	--
USSR . . . . .	--	--	--	--	--	--	--	--	--
Yugoslavia . . . . .	--	7.4	--	--	--	--	--	--	--
Others . . . . .	--	--	--	19.5	1.3	--	--	10.2	--
Total . . . . .	--	7.4	--	151.1	9.9	--	--	11.2	1.9
Asia:									
China, Mainland . . . . .	--	--	--	--	--	--	--	--	--
Japan . . . . .	--	--	--	97.4	--	58.7	5.7	185.0	274.7
Vietnam, North . . . . .	--	--	--	--	--	--	--	--	--
Taiwan . . . . .	--	--	--	--	--	--	--	--	--
Total . . . . .	--	--	--	97.4	--	58.7	5.7	185.0	274.7
Africa:									
South Africa, Rep. of . . . . .	--	--	--	--	--	--	--	--	--
Others . . . . .	1.0	--	.6	30.7	--	--	--	3.6	.2
Total . . . . .	1.0	--	.6	30.7	--	--	--	3.6	.2
World total . . . . .	299.1	643.6	1,078.8	2,130.6	374.8	1,056.8	770.4	1,669.8	2,667.0

Corn exports from Argentina by destination—Continued

Country of destination	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
North and Central America . . . .	1.1	5.8	6.9	13.2	56.1	10.1	9.0	14.0	16.3	5.6
South America:										
Brazil . . . . .	--	--	--	--	--	--	--	--	--	--
Chile . . . . .	--	--	--	--	--	--	--	11.9	29.9	79.0
Guyana . . . . .	--	--	--	--	--	--	--	.6	.5	--
Peru . . . . .	--	3.0	1.5	--	--	2.0	--	--	40.9	--
Uruguay . . . . .	8.7	--	4.4	1.2	39.0	--	.8	11.9	1.7	--
Venezuela . . . . .	--	--	--	--	.1	--	--	--	38.1	43.5
Total . . . . .	8.7	3.0	5.9	1.2	39.1	2.0	.8	24.4	111.1	122.5
Western Europe:										
EC:										
Belgium/Luxembourg . . . . .	170.2	110.3	226.3	157.7	160.8	116.6	135.2	199.5	128.8	94.9
France . . . . .	10.0	2.8	11.1	9.2	19.5	8.8	17.6	9.2	9.5	4.0
Germany, West . . . . .	130.1	60.7	86.9	47.1	84.0	50.9	85.4	151.2	49.1	87.1
Italy . . . . .	1,127.2	822.7	1,603.6	1,650.6	2,050.5	2,149.2	2,658.4	2,114.5	1,851.1	2,073.9
Netherlands . . . . .	433.4	295.0	345.4	292.2	261.4	206.1	202.1	520.2	131.5	197.5
Total . . . . .	1,870.9	1,291.5	2,273.3	2,156.8	2,576.2	2,531.6	3,098.7	2,994.6	2,170.0	2,457.4
Other Western Europe:										
Austria . . . . .	2.3	6.9	5.2	.5	7.3	1.5	5.6	6.2	9.5	11.7
Denmark . . . . .	11.7	1.5	1.0	.4	.2	.1	.1	.1	--	1.0
Finland . . . . .	--	--	--	--	--	4.2	.5	--	--	--
Malta . . . . .	--	--	--	--	--	--	--	--	--	--
Norway . . . . .	4.1	--	--	--	3.6	4.2	4.4	46.2	4.2	36.3
Portugal . . . . .	--	--	--	--	--	--	--	--	--	28.4
Spain . . . . .	--	--	11.4	52.6	132.3	91.0	385.7	888.7	519.0	822.2
Sweden . . . . .	3.4	--	7.6	2.0	--	--	--	--	--	--
Switzerland . . . . .	6.0	4.7	17.3	17.1	11.5	11.2	10.8	7.6	2.5	1.0
United Kingdom . . . . .	284.4	82.6	143.2	74.1	99.0	59.2	100.4	139.2	22.3	108.6
Total . . . . .	311.9	95.7	185.5	146.7	253.9	171.4	507.5	1,088.0	557.5	1,009.2
Eastern Europe and USSR:										
Czechoslovakia . . . . .	--	--	--	--	--	--	--	--	--	--
Hungary . . . . .	--	--	--	--	31.9	50.5	34.9	14.0	18.3	.4
USSR . . . . .	--	--	--	--	--	21.0	--	21.3	25.1	191.7
Yugoslavia . . . . .	--	--	3.6	3.3	2.9	--	--	--	--	--
Others . . . . .	--	10.0	--	--	1.6	--	7.8	--	--	--
Total . . . . .	--	10.0	3.6	3.3	36.4	71.5	42.7	35.3	43.4	192.1
Asia:										
China, Mainland . . . . .	--	35.3	376.2	.3	232.0	57.4	10.3	60.7	--	--
Japan . . . . .	378.8	292.0	50.0	80.4	15.7	4.0	25.9	100.4	--	170.5
Vietnam, North . . . . .	--	--	--	--	11.5	--	--	--	--	--
Taiwan . . . . .	--	--	--	--	--	--	--	--	--	13.9
Total . . . . .	378.8	327.3	426.2	80.7	259.2	61.4	36.2	161.1	--	184.4
Africa:										
South Africa, Rep. of . . . . .	--	--	--	--	--	--	19.6	--	--	--
Others . . . . .	3.0	.2	2.0	--	--	.4	--	--	--	--
Total . . . . .	3.0	.2	2.0	--	--	.4	19.6	--	--	--
World total . . . . .	2,574.4	1,733.5	2,903.4	2,401.9	3,220.9	2,848.4	3,714.5	4,317.4	2,898.3	3,971.2

Grain sorghum exports from Argentina by destination

Country of destination	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
North and Central America .....	0.3	--	0.2	1.0	0.7	1.5	1.2	1.1	1.0	0.6	0.1
South America:											
Brazil .....	--	--	--	--	--	--	--	3.4	1.6	--	--
Chile .....	--	--	--	--	--	--	--	.3	--	--	--
Paraguay .....	--	--	--	--	--	--	--	--	.7	--	--
Uruguay .....	--	--	--	--	--	3.1	--	--	6.6	2.2	.1
Venezuela .....	--	--	--	--	--	--	--	--	--	--	41.3
Total .....	--	--	--	--	--	3.1	--	3.7	8.9	2.2	41.4
Western Europe:											
EC:											
Belgium/Luxembourg .....	12.7	--	38.1	48.8	77.2	71.3	.5	122.4	117.6	155.9	129.5
France .....	--	--	--	--	--	--	--	10.8	--	--	--
Germany, West .....	41.2	--	41.4	58.8	60.7	114.6	22.3	41.6	34.0	42.7	3.3
Italy .....	5.9	--	.7	2.5	--	21.9	4.5	47.3	.1	24.7	--
Netherlands .....	33.2	--	29.4	63.4	114.6	82.0	8.1	95.4	129.3	125.8	149.9
Total .....	93.0	--	109.6	173.5	252.5	289.8	35.4	317.5	281.0	349.1	282.7
Other Western Europe:											
Austria .....	--	--	--	.5	--	--	--	1.1	4.2	.5	--
Denmark .....	13.9	--	32.7	60.9	44.9	9.8	1.2	--	--	--	--
Finland .....	--	--	--	--	--	2.8	--	--	--	--	--
Norway .....	--	--	--	4.1	--	--	--	4.5	8.1	42.2	3.2
Spain .....	--	--	--	--	--	27.4	7.9	200.7	14.1	8.4	9.7
Sweden .....	1.4	--	--	.3	.2	.7	--	--	--	--	--
Switzerland .....	--	--	--	6.0	--	--	--	.4	--	--	--
United Kingdom .....	11.3	--	114.3	148.5	171.1	90.3	56.5	170.3	50.9	7.4	64.3
Total .....	26.6	--	147.0	220.3	216.2	131.0	65.6	377.0	77.3	58.5	77.2
Eastern Europe and USSR:											
Bulgaria .....	--	--	--	--	--	--	--	38.3	--	--	--
Yugoslavia .....	.2	--	--	--	--	1.4	--	--	--	--	--
USSR .....	2.5	--	--	--	--	--	--	--	--	--	--
Total .....	2.7	--	--	--	--	1.4	--	38.3	--	--	--
Asia:											
China, Mainland .....	--	--	--	23.5	--	--	--	--	--	--	--
Israel .....	--	--	--	--	28.8	--	--	--	--	--	--
Japan .....	--	--	--	--	11.0	201.4	76.0	195.9	115.6	84.9	891.5
Others .....	--	--	--	--	--	.5	--	--	--	--	--
Total .....	--	--	--	23.5	39.8	201.9	76.0	195.9	115.6	84.9	891.5
Africa .....	--	--	--	--	--	--	--	--	--	--	39.3
World total .....	122.6	--	256.8	418.3	509.2	628.7	178.2	933.5	483.8	495.3	1,332.2



Rye exports from Argentina by destination

Country of destination	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
North America, Canada . . . . .	--	--	--	--	--	--	--	--	--	--
South America . . . . .	--	--	--	--	--	--	--	--	0.5	--
Western Europe:										
EC:										
Belgium/Luxembourg . . . . .	17.7	3.7	61.4	115.9	17.1	26.5	25.9	15.1	2.9	3.3
France . . . . .	--	--	6.5	--	2.1	12.5	--	--	--	--
Germany, West . . . . .	47.5	15.8	.1	63.7	11.2	13.9	75.3	38.9	30.4	12.8
Italy . . . . .	--	--	121.8	121.7	95.0	29.6	56.7	37.5	3.9	77.7
Netherlands . . . . .	44.2	7.2	68.8	124.7	49.2	26.6	59.7	51.8	8.9	11.5
Total . . . . .	109.4	26.7	258.6	426.0	174.6	109.1	217.6	143.3	46.1	105.3
Other Western Europe:										
Austria . . . . .	15.4	--	--	8.5	( <sup>1</sup> )	4.7	2.0	--	6.6	10.8
Denmark . . . . .	14.6	--	16.8	55.0	9.9	7.9	10.7	5.2	4.3	.3
Finland . . . . .	36.8	39.6	--	33.9	29.7	17.8	39.1	--	--	--
Norway . . . . .	--	2.8	29.0	10.0	16.7	--	15.6	6.2	--	2.1
Sweden . . . . .	7.3	42.2	4.1	--	--	--	16.8	12.6	6.3	13.7
Switzerland . . . . .	1.0	1.8	7.8	9.6	3.3	4.5	2.0	.5	.1	--
United Kingdom . . . . .	.1	--	--	5.8	--	--	.9	1.4	2.0	.4
Total . . . . .	75.2	86.4	57.7	122.8	59.6	34.9	87.1	25.9	19.3	27.3
Eastern Europe:										
Czechoslovakia . . . . .	9.9	--	--	--	--	--	--	--	--	--
Hungary . . . . .	--	--	--	31.3	--	--	--	--	--	--
Poland . . . . .	--	--	--	249.3	80.1	10.0	--	--	--	--
Romania . . . . .	--	--	--	--	--	--	--	8.3	--	--
Total . . . . .	9.9	--	--	280.6	80.1	10.0	--	8.3	--	--
Asia:										
Israel . . . . .	--	--	--	10.2	--	--	--	--	--	--
Japan . . . . .	--	--	--	.3	--	--	--	--	--	--
Total . . . . .	--	--	--	10.5	--	--	--	--	--	--
World total . . . . .	194.5	113.1	316.3	839.9	314.3	154.0	304.7	177.5	65.9	132.6

Country of destination	1961	1962	1963	1964	1965	1966	1967	1968	1969
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
North America, Canada . . . . .	--	0.1	--	--	--	--	--	--	--
South America . . . . .	--	.1	--	0.2	--	--	--	0.2	--
Western Europe:									
EC:									
Belgium/Luxembourg . . . . .	2.2	1.7	--	8.7	7.5	--	--	1.8	0.2
France . . . . .	.6	--	--	--	--	--	--	--	--
Germany, West . . . . .	14.6	2.1	0.2	22.5	10.2	--	--	1.2	--
Italy . . . . .	5.2	.3	2.7	9.7	--	--	--	--	--
Netherlands . . . . .	11.6	2.4	--	39.8	36.6	0.5	--	10.8	8.7
Total . . . . .	34.2	6.5	2.9	80.7	54.3	.5	--	13.8	8.9
Other Western Europe:									
Austria . . . . .	2.5	--	--	--	10.2	--	--	--	--
Denmark . . . . .	--	--	--	4.4	1.3	--	--	1.4	--
Finland . . . . .	.5	1.1	--	18.7	1.3	--	--	--	--
Norway . . . . .	--	--	--	8.6	16.8	3.0	--	3.5	4.1
Sweden . . . . .	7.0	1.0	--	5.4	1.0	--	--	--	--
Switzerland . . . . .	--	--	--	--	1.0	--	--	.5	.4
United Kingdom . . . . .	--	--	--	.1	.1	--	--	--	--
Total . . . . .	10.0	2.1	--	37.2	31.7	3.0	--	5.4	4.5
Eastern Europe:									
Czechoslovakia . . . . .	--	--	--	--	--	--	--	--	--
Hungary . . . . .	--	--	--	--	--	--	--	--	--
Poland . . . . .	--	--	--	--	--	--	--	--	--
Romania . . . . .	--	--	--	--	--	--	--	--	--
Total . . . . .	--	--	--	--	--	--	--	--	--
Asia:									
Israel . . . . .	--	--	--	--	--	--	--	--	--
Japan . . . . .	--	--	--	--	4.3	1.0	--	--	--
Total . . . . .	--	--	--	--	4.3	1.0	--	--	--
World total . . . . .	44.2	8.8	2.9	118.1	90.3	4.5	--	19.4	13.4

<sup>1</sup> Less than 50 tons.

Barley exports from Argentina by destination

Country of destination	1951	1952	1953	1954	1955	1956	1957	1958	1959
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
South America:									
Brazil. ....	1.0	--	3.4	--	--	--	--	4.5	7.3
Peru. ....	--	--	--	--	--	--	--	--	--
Uruguay. ....	--	--	--	--	--	5.6	--	--	10.1
Total. ....	1.0	--	3.4	--	--	5.6	--	4.5	17.4
Western Europe:									
EC:									
Belgium/Luxembourg.	21.0	--	70.5	98.4	34.0	17.0	52.7	10.7	5.0
France. ....	--	--	--	1.2	3.5	1.2	2.0	--	--
Germany, West. ....	86.4	67.1	--	277.7	231.6	477.0	294.3	212.9	188.4
Italy. ....	5.0	--	18.8	3.9	46.9	4.9	70.3	18.6	48.8
Netherlands. ....	8.8	4.1	114.7	154.7	85.8	64.9	101.8	74.0	12.4
Total. ....	121.2	71.2	204.0	535.9	401.8	565.0	521.1	316.2	254.6
Other Western Europe:									
Austria. ....	11.6	--	.8	14.0	1.1	--	.9	--	3.9
Denmark. ....	--	13.2	--	27.8	1.3	--	.2	--	1.7
Finland. ....	--	--	7.3	--	10.7	.5	--	--	--
Spain. ....	--	--	--	--	--	--	--	--	--
Sweden. ....	--	18.5	7.3	--	--	3.0	--	--	1.8
Switzerland. ....	4.6	1.7	20.0	23.8	9.3	2.9	2.2	1.0	1.5
United Kingdom. ....	--	17.2	260.1	50.5	1.6	1.6	19.6	9.0	2.7
Other. ....	--	--	--	--	--	--	--	--	.5
Total. ....	16.2	50.6	295.5	116.1	24.0	8.0	22.9	10.0	12.1
Eastern Europe and USSR:									
Czechoslovakia. ....	--	--	--	--	70.0	3.2	--	2.7	--
Hungary. ....	--	--	4.0	13.0	--	--	--	--	--
USSR. ....	--	--	--	--	--	--	--	--	--
Yugoslavia. ....	9.4	--	4.5	--	--	.4	6.4	4.8	.5
Total. ....	9.4	--	8.5	13.0	70.0	3.6	6.4	7.5	.5
Asia:									
China, Mainland. ....	--	--	--	--	--	--	--	--	--
Israel. ....	--	--	5.5	--	--	--	--	--	--
Others. ....	--	--	27.4	--	--	--	--	--	1.3
Total. ....	--	--	32.9	--	--	--	--	--	1.3
Africa. ....	--	--	--	--	--	--	1.3	.1	--
World total. ....	147.8	121.8	544.3	665.0	495.8	582.2	551.7	338.3	285.9

Barley exports from Argentina by destination—Continued

Country of destination	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
South America:										
Brazil . . . . .	--	12.0	11.0	5.8	12.2	7.2	--	1.0	0.3	1.7
Peru . . . . .	--	4.6	2.0	--	--	--	--	--	--	--
Uruguay . . . . .	--	--	--	--	1.1	--	--	--	--	--
Total . . . . .	--	16.6	13.0	5.8	13.3	7.2	--	1.0	.3	1.7
Western Europe:										
EC:										
Belgium/Luxembourg . . . .	2.6	.1	.1	--	4.6	2.7	--	.5	--	7.7
France . . . . .	--	--	--	3.2	6.1	--	--	--	--	--
Germany, West . . . . .	148.1	81.6	132.9	6.7	98.1	36.3	5.5	--	.6	3.3
Italy . . . . .	68.7	16.0	9.7	14.8	306.6	193.6	87.9	44.1	144.0	149.1
Netherlands . . . . .	18.9	.9	--	1.6	11.7	12.5	0.8	5.5	.5	--
Total . . . . .	238.3	98.6	142.7	26.3	427.1	245.1	94.2	50.1	145.1	160.1
Other Western Europe:										
Austria . . . . .	--	--	--	--	--	--	--	--	--	--
Denmark . . . . .	--	--	--	--	.8	3.5	--	--	--	--
Finland . . . . .	--	--	--	--	--	--	--	--	--	--
Spain . . . . .	--	--	--	2.0	18.6	11.5	2.1	--	.7	--
Sweden . . . . .	--	--	--	--	--	--	--	--	--	--
Switzerland . . . . .	--	--	.5	--	--	.4	.5	1.0	--	--
United Kingdom . . . . .	13.4	5.4	11.2	--	1.5	--	--	.5	--	--
Other . . . . .	.6	--	--	--	--	--	--	--	--	13.4
Total . . . . .	14.0	5.4	11.7	2.0	20.9	15.4	2.6	1.5	.7	13.4
Eastern Europe and USSR:										
Czechoslovakia . . . . .	--	--	--	--	10.0	--	--	--	--	--
Hungary . . . . .	--	--	--	--	--	--	1.8	--	--	--
USSR . . . . .	10.3	--	--	--	--	--	--	--	--	--
Yugoslavia . . . . .	--	--	--	--	--	--	--	--	--	--
Total . . . . .	10.3	--	--	--	10.0	--	1.8	--	--	--
Asia:										
China, Mainland . . . . .	--	--	--	--	31.0	--	--	--	--	--
Israel . . . . .	--	--	--	--	--	12.8	--	--	--	12.9
Others . . . . .	.7	--	--	--	9.6	2.3	--	--	--	--
Total . . . . .	.7	--	--	--	40.6	15.1	--	--	--	12.9
Africa . . . . .	--	1.0	--	--	--	--	--	--	--	--
World total . . . . .	263.3	121.6	167.4	34.1	511.9	282.8	98.6	52.6	146.1	188.1

Oats exports from Argentina by destination

Country of destination	1951	1952	1953	1954	1955	1956	1957	1958	1959
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
North and Central America	--	--	33.3	23.7	--	2.5	3.5	--	--
South America:									
Brazil, .....	1.7	0.1	4.1	3.5	1.4	4.1	6.4	11.7	7.8
Colombia, .....	--	--	--	--	--	--	--	--	--
Uruguay, .....	3.4	--	2.0	--	--	--	--	--	2.0
Others, .....	--	--	--	--	--	--	--	--	--
Total, .....	5.1	.1	6.1	3.5	1.4	4.1	6.4	11.7	9.8
Western Europe:									
EC:									
Belgium/Luxembourg, .....	10.2	1.0	24.0	118.3	4.3	21.2	31.6	31.0	3.7
France, .....	--	--	--	1.1	--	22.8	.5	--	--
Germany, West, .....	25.6	7.0	.7	49.2	27.2	49.4	107.0	144.1	12.4
Italy, .....	--	--	21.1	24.7	15.8	86.0	68.7	38.2	14.0
Netherlands, .....	29.3	8.2	77.2	234.0	0.7	45.3	96.2	122.2	13.2
Total, .....	65.1	16.2	123.0	427.3	48.0	224.7	304.0	335.5	43.3
Other Western Europe:									
Austria, .....	--	--	.9	31.9	4.6	6.2	--	.5	--
Finland, .....	--	5.4	--	.5	16.6	7.0	.8	--	--
Denmark, .....	--	--	4.0	97.7	8.1	1.1	34.4	49.4	8.4
Sweden, .....	8.2	12.9	--	9.8	1.7	--	.5	22.6	3.8
Switzerland, .....	16.4	9.1	43.5	86.3	14.6	1.4	25.7	14.9	--
United Kingdom, .....	8.2	--	--	--	--	18.5	10.5	45.3	0.5
Others, .....	3.0	--	--	--	--	--	4.6	--	--
Total, .....	35.8	27.4	48.4	226.2	45.6	34.2	76.5	132.7	12.7
Eastern Europe:									
Czechoslovakia, .....	--	--	--	--	--	5.2	6.9	13.2	--
Hungary, .....	--	--	--	2.2	--	--	--	--	--
Others, .....	--	--	--	--	--	--	3.0	3.4	--
Total, .....	--	--	--	2.2	--	5.2	9.9	16.6	--
Asia:									
China, Mainland, .....	--	--	--	--	--	--	--	--	--
Others, .....	--	--	1.3	--	--	--	--	--	--
Total, .....	--	--	1.3	--	--	--	--	--	--
Africa, South Africa, Rep. of, .....	--	--	--	--	--	--	--	8.7	--
World total, .....	106.0	43.7	212.1	682.9	95.0	270.7	400.3	505.2	65.8



## Oats exports from Argentina by destination—Continued

Country of destination	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>	<i>1,000 metric tons</i>
North and Central America . . .	--	--	--	--	--	1.1	0.1	--	--	1.1
South America:										
Brazil . . . . .	4.7	13.4	15.1	12.1	12.2	10.1	8.9	9.4	20.3	15.1
Colombia . . . . .	5.3	--	--	--	--	--	--	--	--	--
Uruguay . . . . .	.1	--	--	.9	7.4	--	--	.7	2.0	--
Others . . . . .	--	--	--	--	--	--	.3	1.0	1.9	2.0
Total . . . . .	10.1	13.4	15.1	13.0	19.6	10.1	9.2	11.1	24.2	17.1
Western Europe:										
EC:										
Belgium/Luxembourg . . . .	7.3	1.6	7.9	6.5	3.4	3.8	2.3	1.3	1.4	8.7
France . . . . .	--	--	--	--	--	1.0	--	--	--	--
Germany, West . . . . .	110.8	12.0	60.7	1.5	91.1	68.4	19.0	7.7	30.5	1.9
Italy . . . . .	72.6	75.2	37.6	60.1	166.1	147.2	61.6	109.3	192.3	71.8
Netherlands . . . . .	103.8	97.0	148.3	4.1	107.5	100.2	13.8	59.7	53.9	30.3
Total . . . . .	294.5	185.8	254.5	72.2	368.1	320.6	96.7	178.0	278.0	112.7
Other Western Europe:										
Austria . . . . .	.2	.5	--	--	--	.5	--	--	--	--
Finland . . . . .	--	--	--	--	--	--	--	--	--	--
Denmark . . . . .	18.1	18.5	44.2	3.0	21.1	10.3	--	5.0	1.6	.5
Sweden . . . . .	9.0	--	--	--	2.5	--	--	--	2.4	--
Switzerland . . . . .	7.8	10.4	16.7	.6	12.9	7.7	1.3	8.3	5.3	--
United Kingdom . . . . .	--	--	.3	--	--	--	0.3	--	--	--
Others . . . . .	--	6.7	2.8	--	--	--	--	--	--	--
Total . . . . .	35.1	36.1	64.0	3.6	36.5	18.5	1.6	13.3	9.3	.5
Eastern Europe:										
Czechoslovakia . . . . .	--	--	--	--	--	--	--	--	--	--
Hungary . . . . .	--	--	--	--	--	--	3.2	--	6.3	--
Others . . . . .	--	--	--	--	9.2	--	--	--	--	--
Total . . . . .	--	--	--	--	9.2	--	3.2	--	6.3	--
Asia:										
China, Mainland . . . . .	--	--	--	--	27.5	--	--	--	--	--
Others . . . . .	--	--	--	--	--	.2	--	--	4.5	--
Total . . . . .	--	--	--	--	27.5	.2	--	--	4.5	--
Africa, South Africa, Rep. of . . . . .	--	--	--	--	--	--	--	--	--	--
World total . . . . .	339.7	235.3	333.6	88.8	460.9	350.5	110.8	202.4	322.3	131.4

Support and minimum trading prices for grains in Argentina

Crop year	Wheat			Rye	Oats		Barley		Corn		Grain sorghum	Millet
	Hard	Semihard	Durum		Yellow	White	Malting	Feed	Flint	Dent		
	Pesos per 100 kg.	Pesos per 100 kg.	Pesos per 100 kg.	Pesos per 100 kg.	Pesos per 100 kg.	Pesos per 100 kg.	Pesos per 100 kg.	Pesos per 100 kg.	Pesos per 100 kg.	Pesos per 100 kg.	Pesos per 100 kg.	Pesos per 100 kg.
1949-50 .....	--	23.5	23.5	16.5	14.0	14.3	17.0	15.7	16.0	--	--	--
1950-51 .....	--	30.5	30.5	23.5	21.0	21.3	23.5	22.2	32.0	--	--	--
1951-52 .....	--	34.0	34.0	28.0	25.5	26.0	29.5	27.2	40.0	--	--	--
1952-53 .....	--	50.0	50.0	42.0	38.0	39.0	43.0	39.5	45.0	--	--	--
1953-54 .....	--	50.0	50.0	42.0	38.0	39.0	43.0	39.5	45.0	--	--	--
1954-55 .....	--	50.0	50.0	42.0	38.0	39.0	43.0	39.5	45.0	--	--	--
1955-56 .....	--	70.0	75.0	50.0	55.0	56.5	55.0	50.5	65.0	--	--	--
1956-57 .....	--	75.0	85.0	60.0	60.0	65.5	60.0	55.5	100.0	--	--	--
1957-58 .....	--	100.0	110.0	60.0	60.0	65.5	60.0	55.5	100.0	--	55.0	55.0
1958-59 .....	--	200.0	200.0	120.0	110.0	115.0	140.0	130.0	220.0	--	95.0	95.0
1959-60 .....	--	300.0	300.0	170.0	180.0	185.0	190.0	175.0	230.0	230.0	155.0	155.0
1960-61 .....	380.0	370.0	360.0	240.0	240.0	245.0	250.0	235.0	300.0	280.0	180.0	180.0
1961-62 .....	430.0	420.0	430.0	240.0	240.0	245.0	250.0	235.0	340.0	315.0	220.0	200.0
1962-63 .....	1 650.0	630.0	650.0	400.0	380.0	370.0	420.0	390.0	480.0	460.0	370.0	320.0
1963-64 .....	2 800.0	850.0	850.0	550.0	480.0	490.0	550.0	510.0	600.0	560.0	450.0	380.0
1964-65 .....	780.0	780.0	780.0	550.0	480.0	490.0	550.0	510.0	600.0	560.0	490.0	380.0
1965-66 .....	820.0	795.0	820.0	550.0	500.0	510.0	600.0	550.0	750.0	710.0	500.0	450.0
1966-67:												
Support price....	1,200.0	1,160.0	1,200.0	800.0	700.0	720.0	860.0	800.0	1,000.0	950.0	750.0	700.0
Minimum trading price.....	1,000.0	970.0	1,000.0	660.0	600.0	620.0	720.0	660.0	850.0	800.0	650.0	600.0
1967-68:												
Support price....	1,500.0	1,460.0	1,500.0	1,000.0	900.0	920.0	1,100.0	1,040.0	1,250.0	1,200.0	930.0	850.0
Minimum trading price.....	1,300.0	1,260.0	1,300.0	840.0	800.0	820.0	1,000.0	940.0	1,100.0	1,050.0	830.0	750.0
1968-69:												
Support price....	1,650.0	1,600.0	1,650.0	1,050.0	1,000.0	1,020.0	1,250.0	1,150.0	1,350.0	1,300.0	1,050.0	950.0
Minimum trading price.....	1,450.0	1,400.0	1,450.0	950.0	900.0	920.0	1,100.0	1,000.0	1,250.0	1,200.0	900.0	800.0
1969-70:												
Support price....	1,650.0	1,600.0	1,650.0	1,050.0	1,000.0	1,020.0	1,250.0	1,150.0	1,350.0	1,300.0	1,050.0	870.0
Minimum trading price.....	1,450.0	1,400.0	1,450.0	950.0	900.0	920.0	1,100.0	1,000.0	1,250.0	1,200.0	900.0	820.0
1970-71 .....	4 1,650.0	5 1,600.0	4 1,650.0	1,050.0	1,000.0	1,050.0	1,250.0	1,050.0	1,400.0	1,350.0	6 1,100.0	900.0

1 820.0 through 12/63, 840.0 through 1/64, 860.0 through 2/64, and 880.0 for balance of season.

2 800.0 through 12/63, 820.0 through 1/64, 840.0 through 2/64, and 860.0 for balance of season.

3 For 1970-71 only one support and/or minimum trading price. Prices shown for 1970-71 are expressed in old pesos; for new peso equivalents move the decimal two places to the left, i.e., 1,650.0 old pesos = 16.50 new pesos.

4 1,650.0 through 2/71, 1,700.0 through 3/71, 1,740.0 through 4/71, 1,765.0 through 9/71, 1,650.0 from 10/71 onward.

5 1,600.0 through 2/71, 1,650.0 through 3/71, 1,690.0 through 4/71, 1,715.0 through 9/71, 1,600.0 from 10/71 onward.

6 1,100.0 through 4/71, 1,135.0 through 5/71, 1,155.0 through 6/71, 1,170.0 through 7/71, 1,180.0 from 12/71, 1,100.0 from 1/72 onward.

Source: *Revista de la Bolsa de Cereales, Numero Estadístico*. 1969, and U.S. Agricultural Attaché reports.

Market prices of wheat, corn, sorghum, and beef in Argentina

Year	Market prices (current pesos)				Wholesale price index
	Wheat	Corn	Sorghum	Beef	
	<i>Pesos per 100 kg.</i>	<i>Pesos per 100 kg.</i>	<i>Pesos per 100 kg.</i>	<i>Pesos per kg.</i>	
1950.....	24.77	35.21	--	0.718	100
1951.....	26.97	30.96	--	1.154	149
1952.....	38.11	42.03	--	1.621	195
1953.....	45.86	49.14	--	1.937	218
1954.....	47.57	46.15	<sup>1</sup> 38.56	1.925	225
1955.....	50.49	61.79	43.83	1.867	245
1956.....	69.75	69.40	50.71	2.280	309
1957.....	80.15	104.50	73.87	2.518	383
1958.....	101.76	110.75	78.57	4.041	502
1959.....	244.16	277.93	199.64	14.06	1,172
1960.....	329.42	322.86	253.22	15.15	1,356
1961.....	393.60	388.59	253.60	13.78	1,468
1962.....	514.21	541.97	429.45	16.08	1,914
1963.....	718.99	746.09	488.23	23.25	2,463
1964.....	781.95	692.71	482.58	40.51	3,108
1965.....	754.00	943.00	749.00	50.52	3,854
1966.....	1,066.00	1,040.00	777.00	49.94	4,623
1967.....	1,584.00	1,397.00	1,150.00	60.71	5,812
1968.....	1,552.00	1,431.00	1,111.00	64.35	6,379
1969.....	1,741.00	1,777.00	1,326.00	66.73	6,749

<sup>1</sup> From May onward.

Note: Market prices of wheat, corn, and sorghum, all Buenos Aires. Wheat: Trigo Pan until February 1967, Duro afterward; corn: Maiz Colorado; sorghum: Sorgo Granifero. Beef prices from Liniers market, blended price.

## NOTES





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